

**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): June 4, 2023

DAY ONE BIOPHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-40431
(Commission
File Number)

83-2415215
(IRS Employer
Identification No.)

2000 Sierra Point Parkway, Suite 501
Brisbane, California
(Address of principal executive offices)

94005
(Zip Code)

Registrant's telephone number, including area code: (650) 484-0899

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 \$0.0001 per share	DAWN	Nasdaq Global Select 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 7.01 Regulation FD Disclosure.

On June 4, 2023, Day One Biopharmaceuticals, Inc., or the Company, updated its corporate presentation with information presented at the American Society of Clinical Oncology 2023 Annual Meeting, or the ASCO Presentation. The ASCO Presentation included new and updated clinical data from the Company's ongoing pivotal Phase 2 FIREFLY-1 trial, or the FIREFLY-1 trial, of tovorafenib (DAY101) for pediatric patients with relapsed or progressive low-grade glioma.

Additionally, on June 4, 2023, the Company issued a press release announcing the new and updated clinical data from the FIREFLY-1 trial.

A copy of the revised corporate presentation is attached as Exhibit 99.1 to this Current Report on Form 8-K. A copy of the press release is attached as Exhibit 99.2 to this Current Report on Form 8-K.

The information furnished in this Item 7.01, including Exhibits 99.1 and 99.2, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference into any other filing under the Exchange Act or the Securities Act of 1933, as amended, except as expressly set forth by specific reference in such a filing.

Item 8.01 Other Events.

On June 4, 2023, the Company announced new and updated clinical data from the FIREFLY-1 trial. Program updates and updated data are summarized as follows:

FIREFLY-1 Program Update

In May 2023, the Company initiated a rolling review of a New Drug Application to the U.S. Food and Drug Administration, or the FDA. The rolling review allows the Company to submit portions of the regulatory application and have them reviewed by the FDA on an ongoing basis. The Company anticipates the rolling NDA review of tovorafenib will be complete in October 2023 following submission of an amended clinical study report, or CSR, that will include safety and efficacy data from a planned June 2023 data cutoff.

Updated FIREFLY-1 Data

FIREFLY-1, an open-label, pivotal Phase 2 trial, treated 77 patients and evaluated tovorafenib as a once-weekly monotherapy in patients aged 6 months to 25 years with relapsed or progressive pLGG (Arm 1). The primary endpoint of the FIREFLY-1 trial is overall response rate, or ORR, by Response Assessment for Neuro-Oncology High-Grade Glioma, or RANO-HGG, criteria as assessed by blinded independent central review. Secondary endpoints include ORR by Response Assessment in Pediatric Neuro-Oncology Low-Grade Glioma, or RAPNO-LGG, progression-free survival, duration of response, or DOR, time to response, clinical benefit rate and safety. The study also includes an exploratory analysis of ORR by Response Assessment Neuro-Oncology Low-Grade Glioma, or RANO-LGG.

Patient demographics in registrational Arm 1 (n=77):

- 83% (n=64) of patients had a BRAF fusion, for which there are no approved systemic therapies, while the remaining 17% (n=13) had a BRAF V600E mutation
- Participants were heavily pretreated, with a median of two prior lines of systemic therapy (range: 1-9) and 49% (n=38) of patients having 3 or more prior lines of therapy
- 60% (n=46) of patients had already received at least one prior MAPK inhibitor prior to study participation

RANO-HGG (n=69) data:

- 67% ORR by RANO-HGG, the primary endpoint of the trial
- 93% clinical benefit rate (complete response, or CR, + partial response, or PR, + stable disease, or SD)
 - 6% (n=4) CR
 - 61% (n=42) PR, including 3 unconfirmed partial response, or uPR
 - 26% (n=18) SD
- At the time of data cutoff, the median DOR based on RANO-HGG criteria was not yet reached (95% CI: 9.0 months, not estimable)

Among a total of 77 treated patients:

- The median duration of tovorafenib treatment was 10.8 months, with 74% (n=57) of patients on treatment at the time of data cutoff

Safety data, based on the 136 patients treated in both Arm 1 and Arm 2 of FIREFLY-1, indicated monotherapy tovorafenib to be generally well-tolerated. The vast majority of adverse events were Grade 1 or Grade 2, with most common side effects reported related to tovorafenib being change in hair color (71%), fatigue (50%), vomiting (43%), maculopapular rash (41%) and headache (39%). The most commonly reported lab abnormalities were CPK elevation, anemia, hypophosphatemia and AST elevation. Nearly all of the lab abnormalities had no clinical manifestations and did not require clinical intervention or change in study treatment.

Additional Secondary and Exploratory Endpoint Analyses

The Company also shared the evaluation of responses by RAPNO-LGG and RANO-LGG. Those results include:

* RAPNO-LGG data (n=69):

- 51% (n=35) ORR by RAPNO-LGG
 - 25% (n=17) PR, including 4 uPR
 - 26% (n=18) minor response, or MR, including 4 uMR
 - 36% (n=25) patients with SD
- The median time to response was 5.5 months for confirmed responses
- At the time of data cutoff, the median Independent Review Committee, or IRC, assessed DOR based on confirmed RAPNO-LGG responses is 12 months (95% CI: 11.2, not estimable)

* Pending adjudication

RANO-LGG (n=76) data:

- 49% (n=37) ORR by RANO-LGG
 - 26% (n= 20) PR, including 8 uPR
 - 22% (n= 17) MR, including 2 uMR
 - 34% (n=26) patients with SD
- The median time to response was 4.2 months for confirmed responses
- At the time of data cutoff, the median IRC-assessed DOR based on confirmed RANO-LGG responses is 14.4 months (95% CI: 8.4, not estimable)

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Corporate Presentation
99.2	Press Release, dated June 4, 2023

Forward-Looking Statements

This Current Report on Form 8-K contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and other federal securities laws. Any statements contained herein that do not describe historical facts, including, but not limited to, statements we make regarding our ability to obtain regulatory approval for, and commercialize, tovorafenib, our future results of operations and financial position, business strategy, market size, potential growth opportunities, nonclinical and clinical development activities, efficacy and safety profile of our product candidates, potential therapeutic benefits and economic value of our product candidates, our ability to maintain and recognize the benefits of certain designations received by product candidates, the timing and results of nonclinical studies and clinical trials, commercial collaboration with third parties, and our ability to recognize milestone and royalty payments from commercialization agreements, the expected impact of global business or macroeconomic conditions, including as a result of inflation, rising interest rates, instability in the global banking system, and geopolitical conflict, on our operations, and the receipt and timing of potential regulatory designations, approvals and commercialization of product candidates. Such risks and uncertainties include, among others, the risks identified in the Company's filings with the SEC, including its Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, filed with the SEC on May 1, 2023, and other reports as filed with the SEC. The Company cautions you not to place undue reliance on any forward-looking

statements, which speak only as of the date they are made. The Company undertakes no obligation to update publicly any forward-looking statements to reflect new information, events or circumstances after the date they were made or to reflect the occurrence of unanticipated events.

SIGNATURES

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

DAY ONE BIOPHARMACEUTICALS, INC.

Date: June 5, 2023

By: /s/ Charles N. York II, M.B.A.
Charles N. York II, M.B.A.
Chief Operating Officer and Chief Financial Officer



Day One Biopharmaceuticals

Targeted Therapies for People of All Ages

June 2023

Disclaimer

This presentation and the accompanying oral commentary contain forward-looking statements that are based on our management's beliefs and assumptions and on information currently available to our management. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "predict," "intend," "potential," "would," "continue," "ongoing" or the negative of these terms or other comparable terminology. Forward-looking statements include all statements other than statements of historical fact contained in this presentation, including information concerning our future financial performance, including the sufficiency of our cash, cash equivalents and short-term investments to fund our operations, business plans and objectives, timing and success of our planned nonclinical and clinical development activities, timing and results of nonclinical studies and clinical trials, efficacy and safety profiles of our product candidates, execution of the Phase 2 clinical trial for tovorafenib and the Phase 1b/2 clinical trial for tovorafenib and pimasetib as designed, any expectations about safety, efficacy, timing and ability to complete clinical trials and to obtain regulatory approvals for tovorafenib and other candidates in development, the ability of tovorafenib to treat pediatric low-grade glioma (pLGG) or related indications, the potential therapeutic benefits and economic value of our product candidates, potential growth opportunities, competitive position, industry environment and potential market opportunities, our ability to protect intellectual property and the impact of global business or macroeconomic conditions, including as a result of inflation, rising interest rates, instability in the global banking system, and geopolitical conflicts, including the war in Ukraine, on our business and operations.

Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions and other factors. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. These factors, together with those that are described under the heading "Risk Factors" contained in our most recent Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission ("SEC") and other documents we file from time to time with the SEC, may cause our actual results, performance or achievements to differ materially and adversely from those anticipated or implied by our forward-looking statements.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this presentation, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk.

Cancer Drug Development For People Of All Ages

Mission That Creates Value

- Day One's mission is to help children with cancer, from day one and every day after
- Develop medicines for genomically-defined cancers
- Establish first-in-class position through rapid pediatric registration
- Expand to adolescent and adult populations in parallel and pursue those opportunities with the same commitment we do for children

Tovorafenib (DAY101) Lead Program

- Investigational, oral, CNS-penetrant Type II RAF inhibitor
- Being developed as tablets and pediatric-friendly liquid suspension
- Breakthrough Therapy Designation
- Rare Pediatric Disease Designation
- Orphan Drug Designation (US/EU)

Growing Portfolio and Runway Beyond Clinical Milestones

- Two clinical-stage MEKi assets, in-licensed for combination trials
- Projected cash runway into 2025¹
- Key FIREFLY-1 milestones
 - Initiated rolling NDA submission in May 2023²
 - New clinical data presented in June 2023
 - Expected completion of rolling NDA submission in October 2023

Our Pipeline

Product Candidate	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Recent & Anticipated Milestones
Tovorafenib (DAY101) Type II Pan-RAF Inhibitor <ul style="list-style-type: none"> FDA Breakthrough Therapy Designation for relapsed pLGG FDA Rare Pediatric Disease Designation (PRV Eligible) for pLGG FDA Orphan Drug Designation for malignant glioma EC Orphan Designation for glioma 	Relapsed pLGG	FIREFLY-1 ¹ (pivotal) 				Initiated rolling NDA submission: May 2023 New clinical data presented: June 2023 Expected rolling NDA submission complete: October 2023
	Frontline pLGG	FIREFLY-2 (pivotal) 				First patient dosed: March 2023
	RAF-altered solid tumors ² (monotherapy)	FIRELIGHT-1* 				First patient dosed: November 2021 Poster presented: April 2023
Pimasertib MEK 1/2 Inhibitor	MAPK-altered solid tumors ³ (Combo w/tovorafenib)	FIRELIGHT-1* 				First patient dosed: May 2022

*Includes patients ≥12 years of age. ¹ FIREFLY-1 Arm 1 expected to support registration. ² DAY101 adult monotherapy Phase 1 dose escalation and expansion trial previously completed. ³ Pimasertib Phase 1 dose escalation and expansion trial previously completed. pLGG, pediatric low-grade glioma. Tovorafenib and Pimasertib are investigational products. Safety and efficacy have not been established by any health authority.

Tovorafenib (DAY101)

Type II RAF Inhibitor

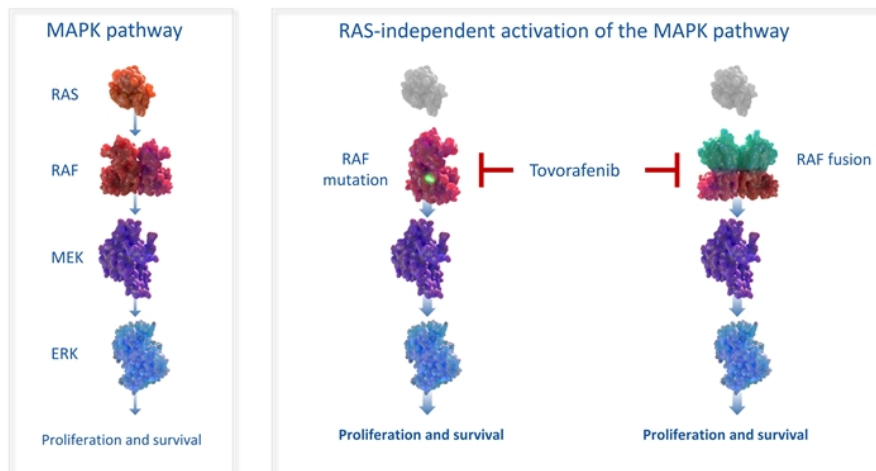
Pediatric Low-Grade Gliomas (pLGG)



- Despite being the most common brain tumor in children, there are no approved agents and no standard-of-care for the majority of patients with relapsed/progressive disease^{1,2}
 - ~70% of patients will require systemic therapy
 - Patients have a high rate of recurrence and are frequently treated with multiple lines of systemic therapy over the course of their disease
- The majority of pLGGs are driven by *BRAF* alterations³
 - ~85% of *BRAF*-altered tumors harbor a *KIAA1549-BRAF* gene fusion
 - ~15% are driven by *BRAF* V600E mutation
- Despite low-grade histology and high long-term survival, pLGGs are chronic and relentless¹⁻⁴
 - Goal of therapy is to stabilize or shrink tumors while minimizing treatment-associated toxicities from surgery, chemotherapy, and radiation
 - Many patients today suffer profound tumor and treatment-associated morbidity and significant late effects that persist throughout life

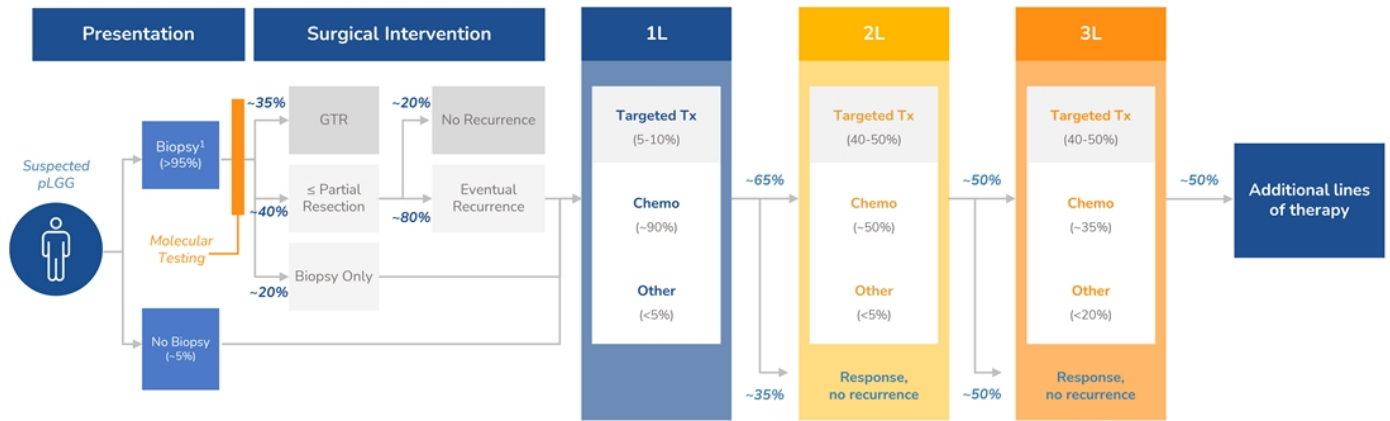
¹ Ostrum QT et al., *Neuro Oncol.* 2015; 16(Suppl 10):x1-x36; ² De Blank P. et al., *Curr Opin Pediatr.* 2019 Feb; 31(1):21-27. ³ Jones DTW et al., *Cancer Res.* 2008; 68:8673-77. ⁴ Traunwieser T et al., *Neurooncol Adv.* 2020; 2:vdaa094.

Tovorafenib (DAY101) Inhibits Both BRAF Fusions And BRAF V600 Mutations



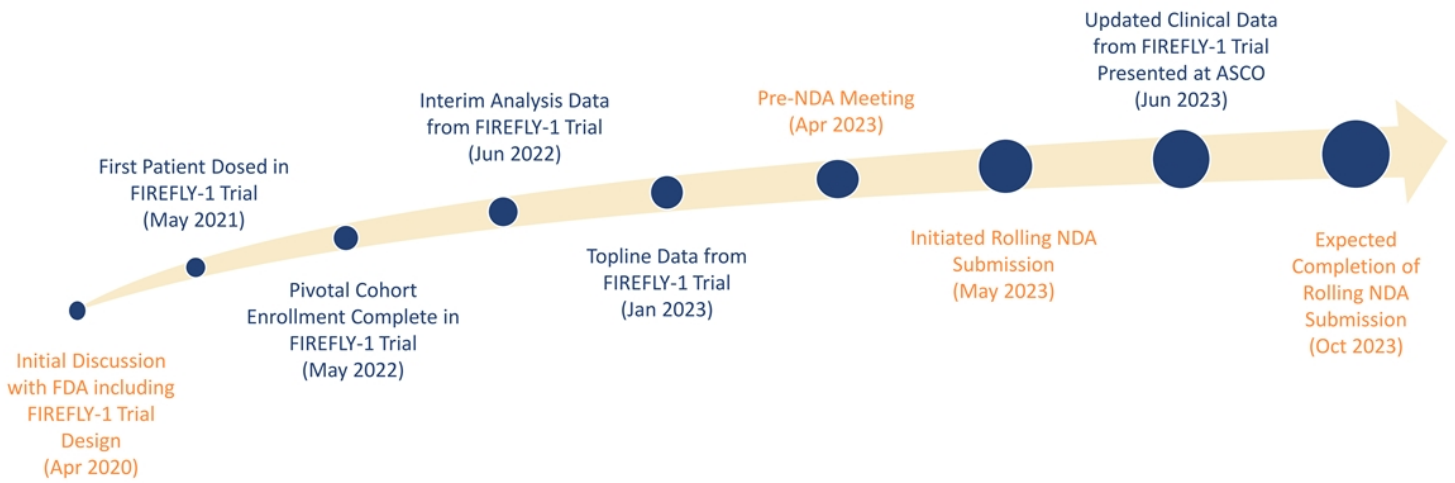
- **Tovorafenib (DAY101) is an investigational, oral, selective, CNS-penetrant, type II pan-RAF inhibitor that was designed to inhibit both monomeric and dimeric RAF kinase**
 - Activity in tumors driven by both RAF fusions and BRAF V600E mutations
 - Tablet and pediatric-friendly liquid suspension
 - Once weekly dosing
- **Currently approved type I BRAFi are indicated for use in patients with tumors bearing BRAF V600E mutations**
 - Type I BRAF inhibitors cause paradoxical MAPK activation in the setting of wild-type RAF, increasing the risk of tumor growth in BRAF fusion-driven

The Current pLGG Treatment Paradigm Reflects The Unrelenting Nature Of This Chronic Brain Tumor



Because many pLGGs undergo senescence when patients reach their 20s, the goal of therapy is to **maximize tumor control** while **minimizing treatment-associated toxicities** from surgery, chemotherapy, and radiation. As a result, a large number of pLGG patients will undergo **multiple lines of systemic therapy** over the course of their disease.

Progress Of FIREFLY-1 Program: Monotherapy Tovorafenib In Relapsed pLGG



Pivotal Phase 2 Trial Of Monotherapy Tovorafenib (DAY101) In Relapsed Or Progressive pLGG (FIREFLY-1)



Trial Design

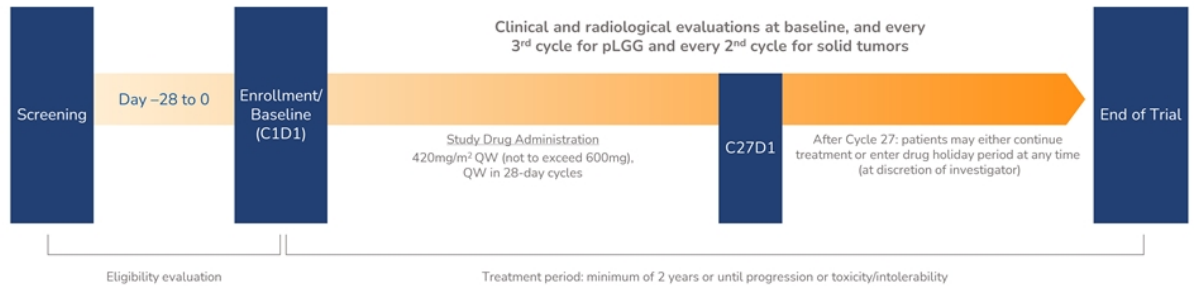
- Three arm, open-label, global registrational phase 2 trial
- **Pivotal Arm 1 (recurrent/progressive pLGG, n=77): harboring a KIAA1549-BRAF fusion or BRAF V600E mutation**
- Arm 2 (expanded access recurrent/progressive LGG, n=59): harboring an activating RAF alteration
- Arm 3 (extracranial solid tumors): harboring an activating RAF fusion

Endpoints (Pivotal Arm 1)

- **Primary endpoint: ORR based on RANO-HGG¹, assessed by blinded independent central review**
- Secondary endpoints: ORR by RAPNO-LGG² assessed by blinded independent central review; PFS, DoR; TTR, CBR; safety
- Exploratory analyses: ORR and CBR by RANO-LGG³ assessed by blinded independent central review

Key Inclusion Criteria

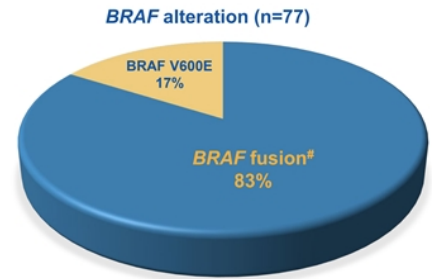
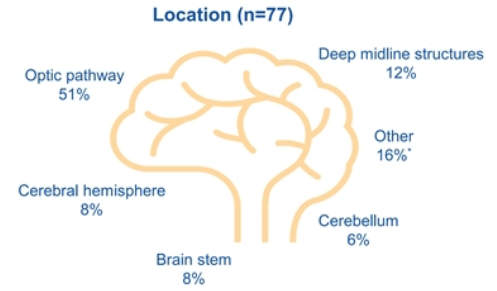
- 6 months – 25 years of age
- RAF-altered tumor
- ≥1 prior line of systemic therapy with radiographic progression
- Prior use of MAPK pathway targeted therapy was permitted



Dec 22, 2022 data cutoff. ¹ Wen PY, et al. *J Clin Oncol.* 2010;28(11):1963-1972. ² Fangusaro J, et al. *Lancet Oncol.* 2020;21(6):e305-316. ³ van den Bent MJ, et al. *Lancet Oncol.* 2011;12(6):583-593. Abbreviations: CBR, clinical benefit rate; IRC, independent review committee; C, cycle; D, day; LGG, low-grade glioma; ORR, objective response rate; PFS, progression-free survival; DoR, duration of response; QW, once weekly; TTR, time to response; RANO, Response Assessment in Neuro-Oncology; RAPNO, Response Assessment in Pediatric Neuro-Oncology; MAPK, mitogen-activated protein kinase. For more information, please refer to www.dayonebiopharma.com.

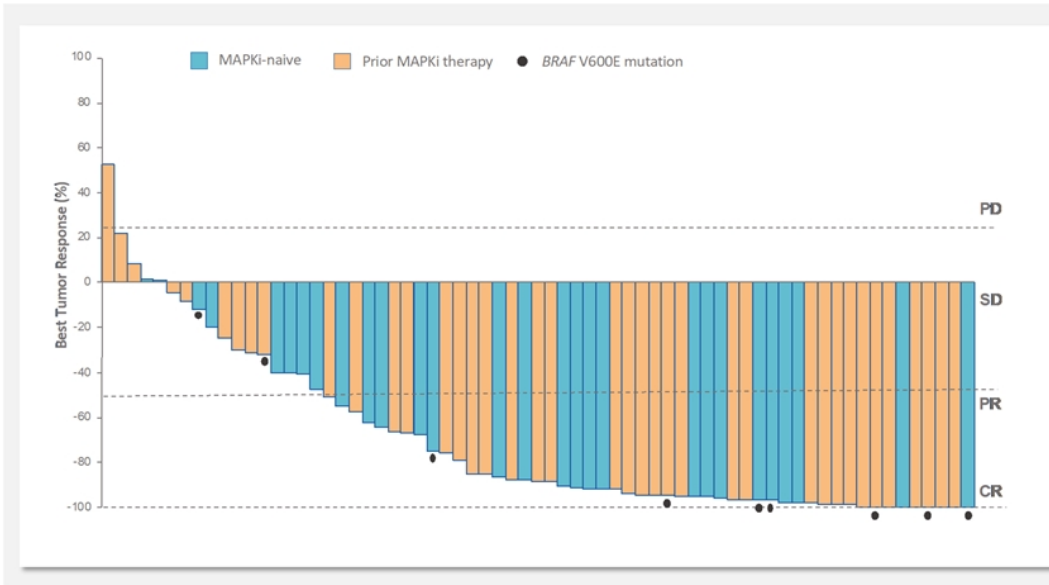
FIREFLY-1 Baseline Patient Characteristics

Characteristic	Arm 1 (n=77)
Median age, years (range)	8 (2-21)
Sex, n (%)	
Male	40 (52)
Female	37 (48)
Race, n (%)	
Black or African American	2 (3)
Asian	5 (6)
White	41 (53)
Multiple	3 (4)
Other	6 (8)
Not reported	20 (26)
Number of lines of prior systemic therapy	
Median (range)	2 (1-9)
1, n (%)	18 (23)
2, n (%)	21 (27)
≥3, n (%)	38 (49)
Prior MAPK pathway targeted therapy, n (%)	46 (60)



Dec 22, 2022 data cutoff. *Includes tumors that were extending into multiple regions of the brain, leptomeningeal disease, and/or spinal disease. #Includes 6 patients with BRAF duplication and 2 with BRAF rearrangement per FISH (Fluorescence in situ hybridization) or ISH (in situ hybridization). MAPK, mitogen-activated protein kinase.

Tumor Response To Tovorafenib (DAY101) For All Patients With RANO-HGG Evaluable Lesions (n=69)

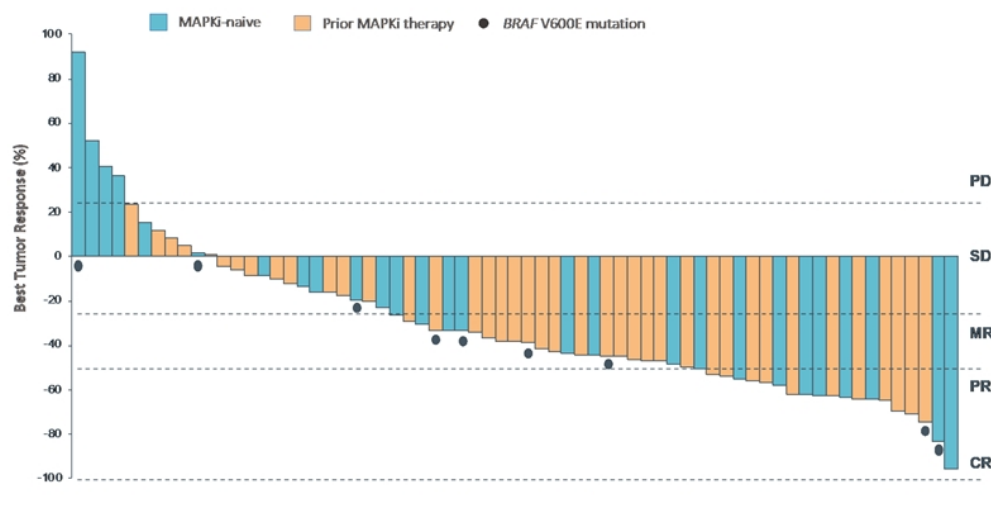


Response (IRC)	RANO-HGG ¹ Evaluable n=69
ORR (cCR + cPR + uPR), n (%)	46 (67%)*
Clinical benefit rate, n (%)	64 (93%)
cCR, cPR/uPR, or SD	47 (68%)
cCR, cPR/uPR, or SD for 12 mo+	4 (6%)
Best overall response, n (%)	
CR	4 (6%)
PR (includes 3 uPR)	42 (61%)
SD	18 (26%)
PD	4 (6%)
Not evaluable	1 (1%)

All 3 patients with uPR remain on treatment as of May 23, 2023

Dec 22, 2022 data cutoff. Percents may not add to 100% due to rounding. Two of 69 patients are not shown in the waterfall plot; one patient passed away due to progressive disease (not related to tovorafenib) before the first imaging assessment and one did not receive T1 Gd+ follow-up imaging. *P<0.001 from two-sided exact binomial test to test null hypothesis of ORR=21% based on Bouffet et al.² Wen PY, et al. J Clin Oncol. 2010;28(11):1963-1972. Bouffet E, et al. J Clin Oncol. 2012;30(12):1358-1363. CBR, clinical benefit rate; cCR, confirmed completed response; cPR, confirmed partial response; CR, complete response; HGG, high-grade glioma; IRC, independent radiology review committee; MAPKi, mitogen-activated protein kinase inhibitor; MR, minor response; ORR, overall response rate; PD, progressive disease; PR, partial response; RANO, Response Assessment in Neuro-Oncology; SD, stable disease; uPR, unconfirmed partial response. There are 17 patients with stable disease of less than 12 months duration and at the time of the data cutoff, 11 remain on treatment.

Tumor Response To Tovorafenib (DAY101) For All Patients With RAPNO-LGG Evaluable Lesions (n=69*)

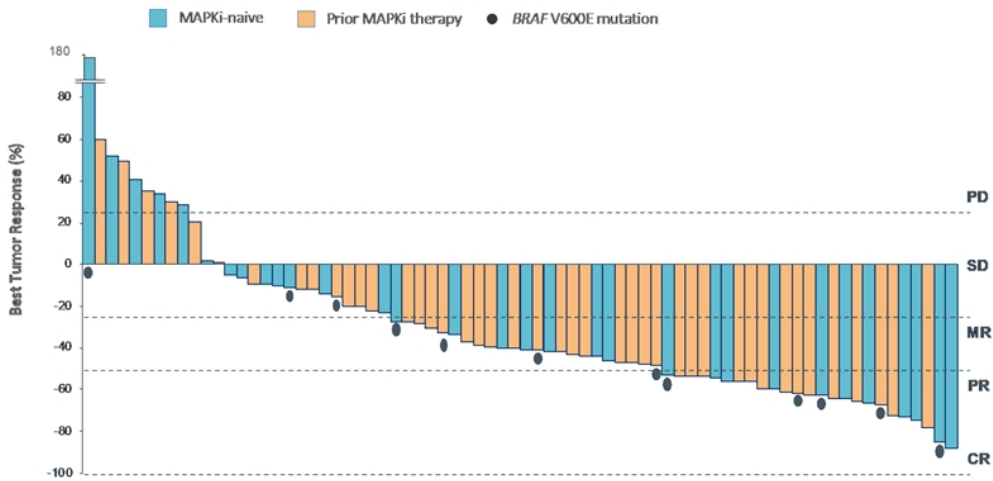


Response (IRC)	RAPNO-LGG ¹ Evaluable n=69
ORR (cCR + cPR/uPR + cMR/uMR), n (%)	35 (51%)
Clinical benefit rate, n (%)	60 (87%)
cCR, cPR/uPR, cMR/uMR, or SD	32 (46%)
cCR, cPR/uPR, cMR/uMR, or SD for 12mo+	
Best overall response, n (%)	
CR	0 (0%)
PR (includes 4 uPR)	17 (25%)
MR (includes 4 uMR)	18 (26%)
SD	25 (36%)
PD [#]	8 (12%)
Not evaluable	1 (1%)

All 4 patients with uPR and 3 patients with uMR remain on treatment as of May 23, 2023

Dec 22, 2022 data cutoff. Percents may not add to 100% due to rounding. Two of 69 patients not shown in waterfall plot; one patient passed away due to progressive disease (not related to tovorafenib) before the first imaging assessment and one patient had visual progressive disease but no evaluable T2 measurements at the time of progression. *Pending adjudication. ¹Fangusaro J, et al. Lancet Oncol. 2020;21(6):e305-316. [#]PD for RAPNO-LGG was not used to determine treatment discontinuation; patients could continue treatment if there was no PD based on RAPNO-HGG per investigator's assessment. CBR, clinical benefit rate; cCR, confirmed completed response; cMR, confirmed minor response; cPR, confirmed partial response; CR, complete response; HGG, high-grade glioma; IRC, independent radiology review committee; LGG, low-grade glioma; MAPKi, mitogen-activated protein kinase inhibitor; MR, minor response; ORR, overall response rate; PD, progressive disease; PR, partial response; RAND, Response Assessment in Neuro-Oncology; RAPNO, Response Assessment in Pediatric Neuro-Oncology; SD, stable disease; uMR, unconfirmed minor response; uPR, unconfirmed partial response. There are 28 patients with stable disease of less than 12 months duration and at the time of the data cutoff, 11 remain on treatment.

Tumor Response To Tovorafenib (DAY101) For All Patients With RANO-LGG Evaluable Lesions (n=76)

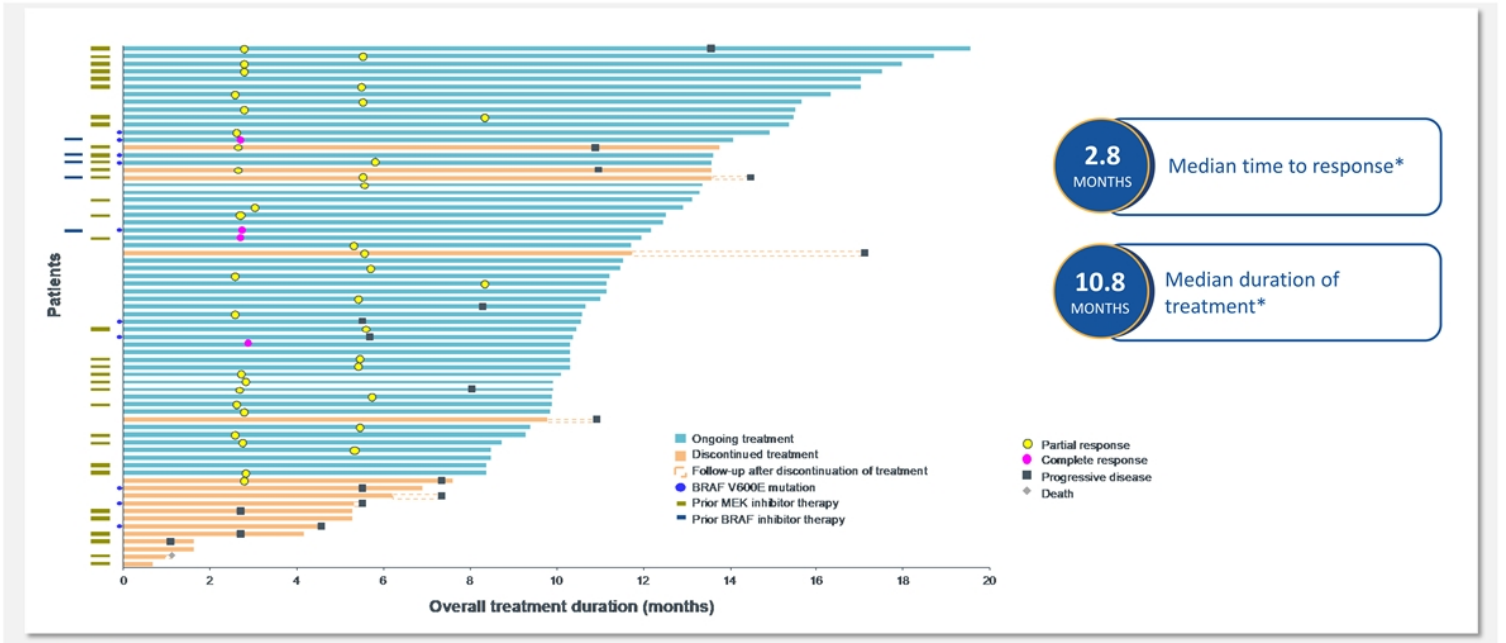


Response (IRC)	RANO-LGG ¹ Evaluable n=76
ORR (cCR + cPR/uPR + cMR/uMR), n (%)	37 (49%)
Clinical benefit rate, n (%)	
cCR, cPR/uPR, cMR/uMR, or SD	63 (83%)
cCR, cPR/uPR, cMR/uMR, or SD for 12mo+	36 (47%)
Best overall response, n (%)	
CR	0 (0%)
PR (includes 8 uPR)	20 (26%)
MR (includes 2 uMR)	17 (22%)
SD	26 (34%)
PD [#]	11 (14%)
Not evaluable [§]	2 (3%)

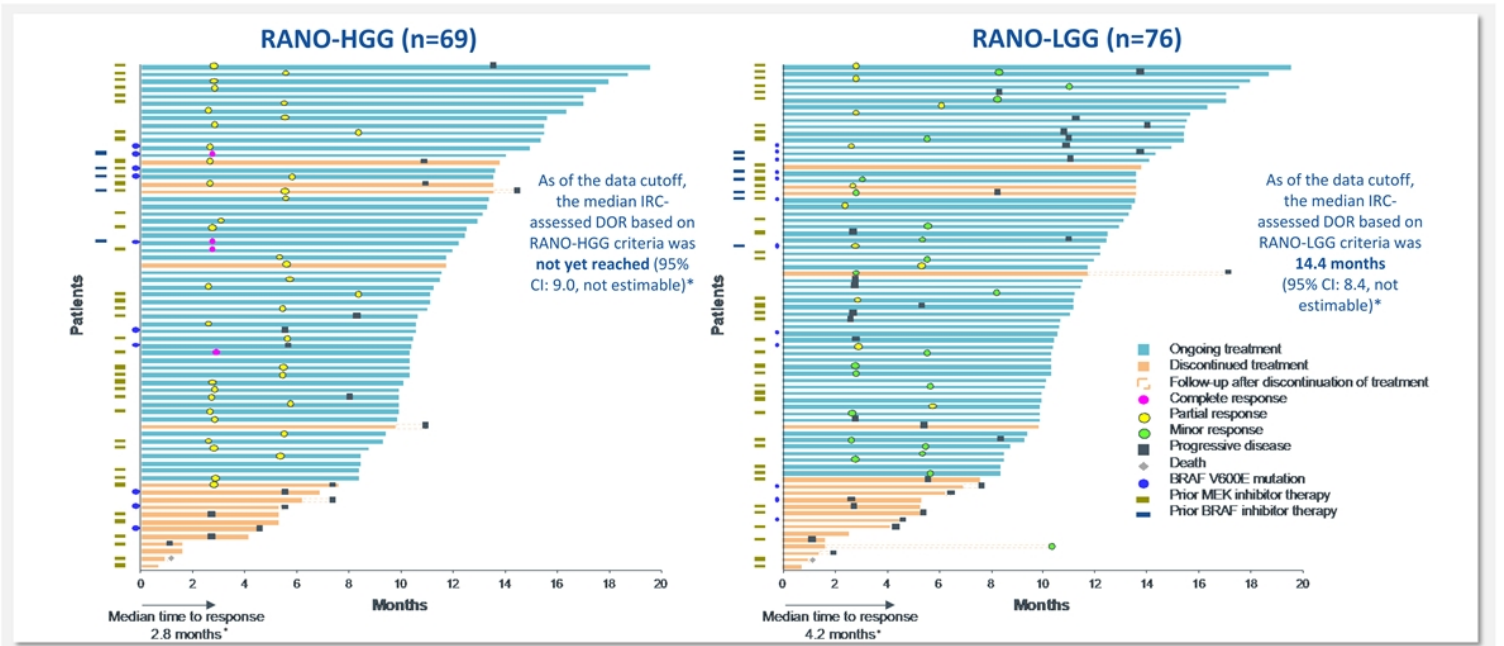
All 8 patients with uPR and 2 patients with uMR remain on treatment as of May 23, 2023

Dec 22, 2022 data cutoff. Percents may not add to 100% due to rounding. [#]PD for RANO-LGG was not used to determine treatment discontinuation; patients could continue treatment if there was no PD based on RANO-HGG per investigator's assessment. [§]Two of 76 patients are not shown in the waterfall plot; one patient passed away due to progressive disease (not related to tovorafenib) before the first imaging assessment, and one patient with missing T1 Gd+ imaging at baseline was deemed NE at all timepoints but had a best SPPD decrease of 65% on T2 imaging. ¹van den Bent MJ, et al. *Lancet Oncol.* 2011;12(6):583-593. BL, baseline; CBR, clinical benefit rate; cCR, confirmed completed response; cMR, confirmed minor response; cPR, confirmed partial response; CR, complete response; HGG, high-grade glioma; IRC, independent radiology review committee; LGG, low-grade glioma; MAPKi, mitogen-activated protein kinase inhibitor; MR, minor response; ORR, overall response rate; PD, progressive disease; PR, partial response; RANO, Response Assessment in Neuro-Oncology; SD, stable disease; SPPD, sum of the products of perpendicular diameters; uMR, unconfirmed minor response; uPR, unconfirmed partial response. There are 27 patients with stable disease of less than 12 months duration and at the time of the data cutoff; 19 remain on treatment.

Duration Of Tovorafenib (DAY101) Therapy For All Patients With RANO-HGG Evaluable Lesions (n=69)

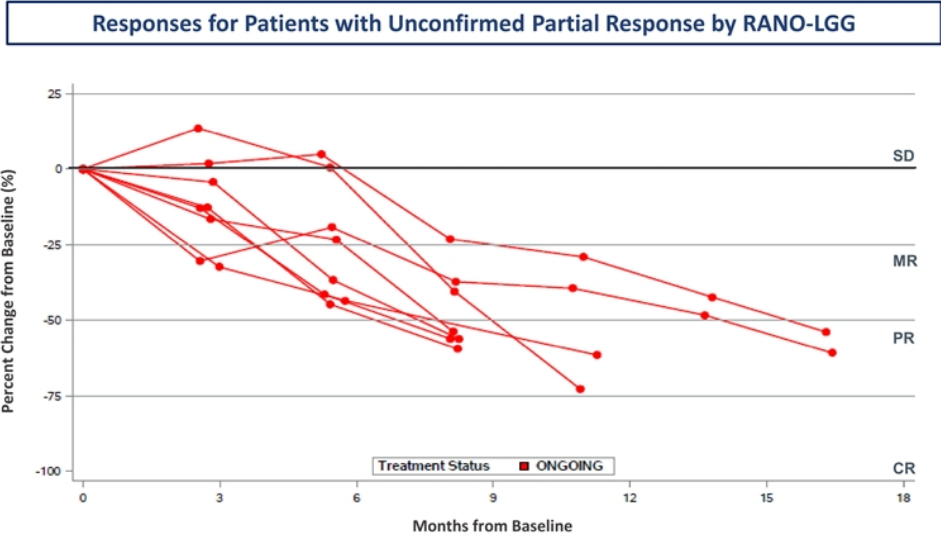


Duration Of Tovorafenib (DAY101) Therapy For All Patients With RANO-HGG & RANO-LGG Evaluable Lesions



* Analysis for median time to response and median duration of response only included confirmed responses. BOR is shown; circles indicate start of response. PD for the purpose of treatment was based on RANO-HGG, not RANO-LGG. BOR, best overall response; HGG, high-grade glioma; LGG, low-grade glioma; PD, progressive disease; RANO, Response Assessment in Neuro-Oncology; DOR, duration of response; CI, confidence interval.

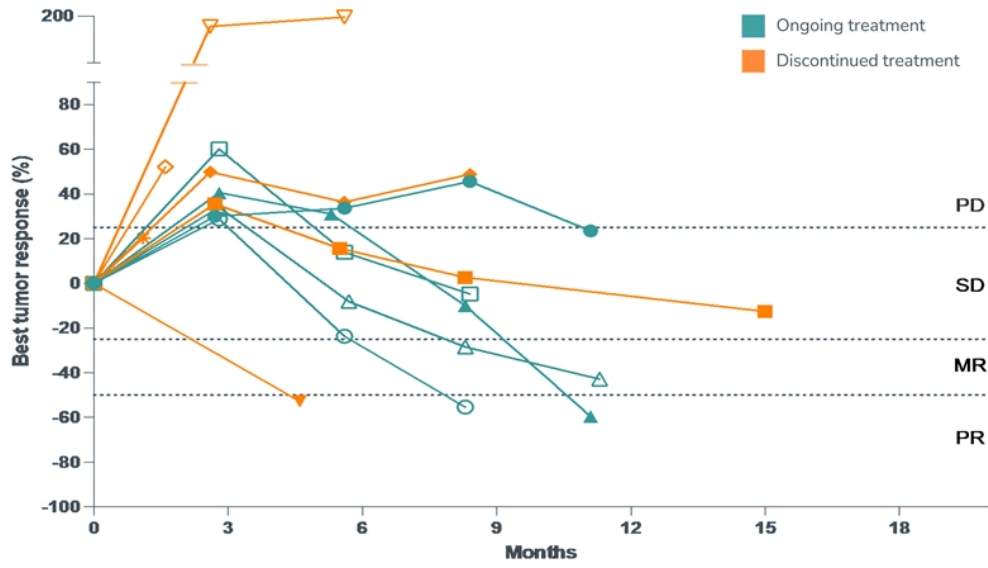
All RANO-LGG Unconfirmed PR Patients Continue On Treatment With Demonstrable Deepening Of Response (n=8)



All 8 patients with unconfirmed partial response by RANO-LGG remain on treatment as of May 23, 2023

Spider plot for SPPD – baseline and after treatment (RANO-LGG by IRC) – unconfirmed PR patients EOT status based on May 23, 2023 EDC data. Individual patient response data is current as of the data cutoff of December 22, 2022; treatment status data is current as of May 23, 2023.

Nearly Half Of Patients With Best Response Of PD By RANO-LGG Have Tumor Stabilization And Response With Continued Treatment (n=11)



5/11 patients with best response of PD by RANO-LGG remain on treatment as of May 23, 2023

Individual patient response data is current as of the data cutoff of December 22, 2022; treatment status data is current as of May 23, 2023.
Day One Biopharmaceuticals



Tovorafenib (DAY101) Safety Data (n=136)

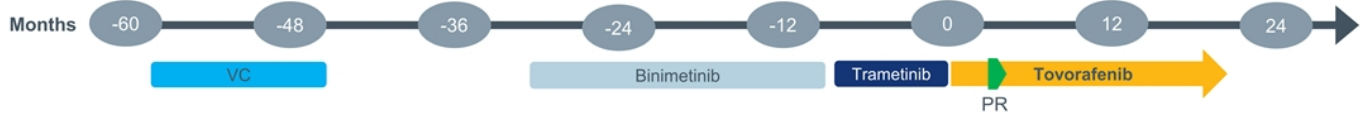
Preferred term, n (%)	Treatment-emergent AEs		Treatment-related AEs	
	Any grade	Grade ≥3	Any grade	Grade ≥3
Any AE	136 (100)	68 (50)	133 (98)	47 (35)
Hair color changes	96 (71)	-	96 (71)	-
Fatigue	68 (50)	4 (3)	54 (40)	4 (3)
Vomiting	59 (43)	3 (2)	24 (18)	3 (2)
Rash maculo-papular	56 (41)	10 (7)	51 (38)	10 (7)
Headache	53 (39)	1 (1)	27 (20)	-
Pyrexia	43 (32)	2 (1)	15 (11)	1 (1)
Nausea	40 (29)	-	21 (15)	-
Dry skin	39 (29)	-	34 (25)	-
Dermatitis acneiform	37 (27)	1 (1)	36 (26)	1 (1)
Constipation	36 (26)	-	28 (21)	-
Decreased appetite	35 (26)	4 (3)	25 (18)	3 (2)
Epistaxis	34 (25)	-	22 (16)	-

- The vast majority of treatment-emergent AEs were Grade 1 or 2
- 39 patients (29%) required dose modifications due to treatment-related AEs
 - Dose interruptions were brief, with the median time of dose interruption being 2 weeks
- 5 patients (4%)* discontinued due to AE, with 4 patients (3%) discontinuing due to treatment-related AEs
- The most commonly reported lab abnormalities were CPK elevation, anemia, hypophosphatemia, and AST elevation
 - Nearly all had no clinical manifestations and did not require clinical intervention or change in study treatment

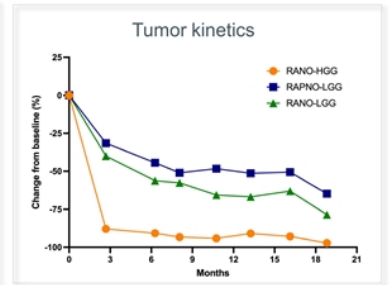
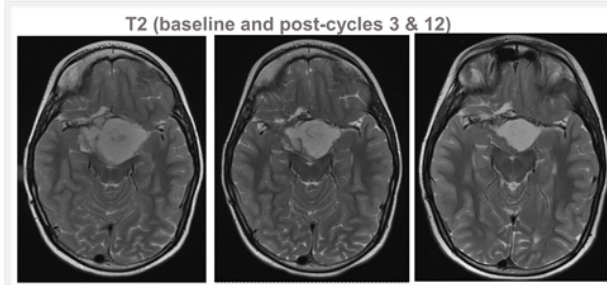
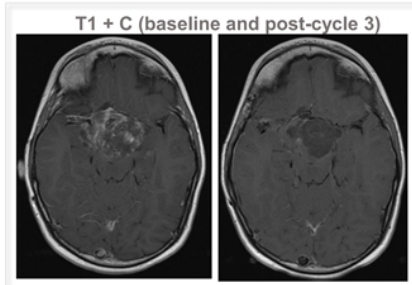
Dec 22, 2022 data cutoff. Table shows treatment-emergent AEs with frequency ≥25% of any grade. Rash erythematous treatment-emergent: any grade, 14 (10%); grade ≥3 1 (1%); treatment-related: any grade, 14 (10%), grade ≥3 1 (1%). *One patient had 2 events (shunt malfunction [not related to tovorafenib] and tumor hemorrhage [related to tovorafenib]). AEs, adverse events.

Case Study: Activity Of Tovorafenib (DAY101) In KIAA1549-BRAF Fusion Optic Pathway Glioma

8-year-old boy with relapsed pilomyxoid astrocytoma of the optic pathway, with visual loss in right eye, visual field loss in left eye, fatigue, intermittent nausea/vomiting, intermittent headaches, anorexia, and temperature regulation disorder



- Initiated treatment with tovorafenib 400 mg/QW following 3 prior therapies, including binimetinib and trametinib, which were discontinued due to PD
- At cycle 3, PR (-88%) per RANO-HGG, and MR (-32% and -40%) per RAPNO-LGG and RANO-LGG, respectively
 - Sustained improvements in visual acuity reported; logMAR change 0.2 → 0
 - PD criteria met (-94% to -91%) with RANO-HGG at cycle 15; continued treatment as investigator deemed no radiographic progression with subsequent reduction in target lesion (-97%)
- AEs were G2 (drug eruption, elevated CPK) and G1 (hair color change, paronychia, growth retardation)



Dec 22, 2022, data cut-off. AEs, adverse events; C, contrast; CPK, creatine phosphokinase; G, grade; HGG, high-grade glioma; LGG, low-grade glioma; logMAR, Logarithm of the Minimum Angle of Resolution; MR, minor response; PD, progressive disease; PR, partial response; QW, once weekly; RANO, Response Assessment in Neuro-Oncology; RAPNO, Response Assessment in Pediatric Neuro-Oncology; VC, vincristine-carboplatin.

Key Takeaways And Next Steps

- Clinically meaningful data from FIREFLY-1 for pediatric patients with recurrent or progressive LGG harboring *BRAF* fusions or *BRAF* V600E mutations, for whom there is no standard-of-care and no approved agents for the majority of patients
 - 67% ORR and 93% clinical benefit rate (complete response + partial response/unconfirmed partial response + stable disease) by RANO-HGG
 - 51% ORR and 87% clinical benefit rate (partial response/unconfirmed partial response + minor response/unconfirmed minor response + stable disease) by RAPNO-LGG*
 - 8 unconfirmed RAPNO-LGG responses (4uPR, 4uMR) with 7 continuing on treatment as of May 23, 2023
 - 49% ORR and 83% clinical benefit rate (partial response/unconfirmed partial response + minor response/unconfirmed minor response + stable disease) by RANO-LGG
 - 10 unconfirmed RANO-LGG responses (8uPR, 2uMR) with all 10 patients continuing on treatment as of May 23, 2023
- Responses were observed in patients with both *BRAF* fusion and *BRAF* V600E mutations, as well as those who received prior MAPK-targeted therapy
- Rapid time to response regardless of response assessment criteria (median times: 2.8 months with RANO-HGG, 5.5 months with RAPNO-LGG*, and 4.2 months with RANO-LGG)[#]
- A heavily-pretreated population, with a median of 2 prior lines of therapy (range: 1-9), and the majority of patients having relapsed or progressed after one or more prior MAPK inhibitors
- Encouraging safety and tolerability profile indicating monotherapy tovorafenib to be generally well-tolerated
- **Initiated rolling submission of NDA in May 2023**
- FIREFLY-2 Pivotal Phase 3 trial in front-line pLGG is enrolling; first patient dosed in March 2023

Incidence And Prevalence Of BRAF-Altered pLGG In The U.S.

	2020 Estimated Incidence Under 25	2017 Estimated SEER Prevalence Under 25
US Population ¹	~105,000,000	NA
Rate of CNS Tumors (0.00521%) ²	~5,500	~130,000 ³
Gliomas (63%) ²	~3,500	~82,000
Low Grade (77%) ²	~2,600	~63,000
Has Received Drug Tx (58%) ²	~1,500	~36,000
BRAF Altered (70%) ²	~1,100	~26,000



~1,100
Estimated Annual Incidence

~26,000
Estimated Prevalence

¹ US Census; ² CBTRUS, Qaddoumi et al 2009, Schreck et al 2019, ClearView Analysis; ³ SEER US complete prevalence counts of patients aged under 25 with Brain and Other Nervous Systems tumors as of January 1, 2017. Estimated annual incidence and estimated prevalence are Day One calculations based on publicly available data.

FIREFLY-2/LOGGIC

Pivotal Phase 3 Trial of Tovorafenib (DAY101) in Newly Diagnosed pLGG

FIREFLY-2/LOGGIC Pivotal Phase 3 Trial Of Tovorafenib (DAY101) In Newly Diagnosed pLGG

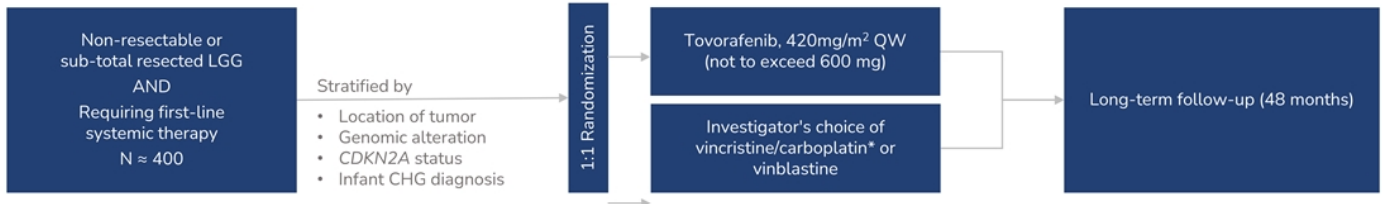


Trial Design

- Randomized, global, registrational Phase 3 trial of monotherapy tovorafenib (DAY101) vs SoC chemotherapy
- Eligibility: Patients aged 6 months to <25 years with LGG harboring a RAF alteration and requiring first-line systemic therapy
- Tovorafenib (DAY101) available as tablets and pediatric-friendly liquid suspension
- Patients who progress after stopping tovorafenib (DAY101) may be re-challenged
- Patients who progress in the SoC arm during or post-treatment may cross-over to receive tovorafenib

Endpoints

- **Primary endpoint:** ORR based on RANO-LGG criteria, assessed by blinded independent central review¹
 - The ORR primary analysis is expected to occur ~12 months after the last patient randomized
- Key secondary endpoints: PFS and DoR by RANO criteria, ORR by RAPNO criteria
- Other secondary endpoints: changes in neurological and visual function, safety, and tolerability
- Key exploratory objectives: QoL and health utilization measures



* COG or SIOPe-LGG regimen. Abbreviations: CHG, chiasmatic, hypothalamic glioma; DoR, duration of response; LGG, low-grade glioma; ORR, objective response rate; QoL, quality of life; QW, once weekly; SoC, standard of care. ¹ Primary endpoint of FIREFLY-2 will be ORR by RANO-LGG (2017) following full approval by FDA on March 16, 2023 of dabrafenib with trametinib in pediatric patients with low-grade glioma with a BRAF V600E mutation who require systemic therapy based on a study with the same primary endpoint.

FIREFLY-2/LOGGIC: Pivotal Phase 3 Study Of Tovorafenib (DAY101) In Newly Diagnosed pLGG

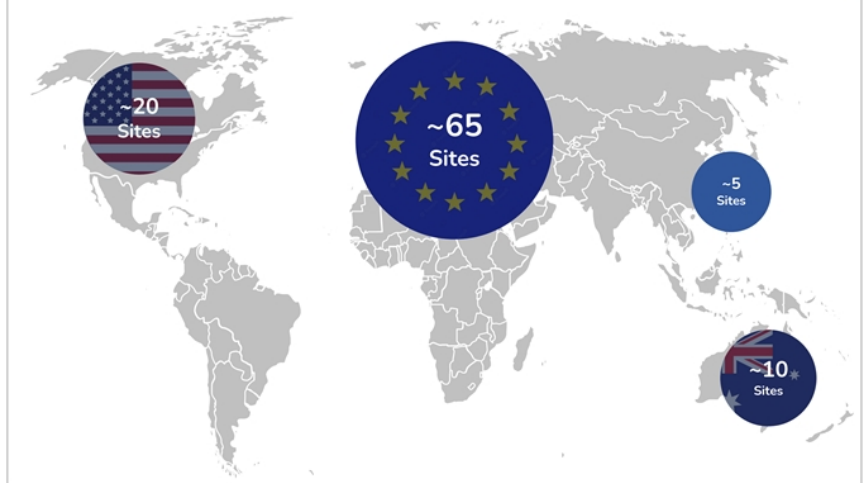
- **Collaboration between Day One and the LOGGIC consortium, internationally recognized experts in pLGG research**
 - Coupled with the LOGGIC-CORE molecular diagnostic program
 - Worked jointly on the study design and discussions with the U.S. and EU regulatory authorities

LOGGIC
EUROPE

LOGGIC: LOw Grade Glioma In Children



Approximately 100 potential sites (~65 from the LOGGIC consortium)



Our Pipeline

Product Candidate	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Recent & Anticipated Milestones
Tovorafenib (DAY101) Type II Pan-RAF Inhibitor <ul style="list-style-type: none"> FDA Breakthrough Therapy Designation for relapsed pLGG FDA Rare Pediatric Disease Designation (PRV Eligible) for pLGG FDA Orphan Drug Designation for malignant glioma EC Orphan Designation for glioma 	Relapsed pLGG	FIREFLY-1 ¹ (pivotal)				Initiated rolling NDA submission: May 2023 New clinical data presented: June 2023 Expected rolling NDA submission complete: October 2023
	Frontline pLGG	FIREFLY-2 (pivotal)				First patient dosed: March 2023
	RAF-altered solid tumors ² (monotherapy)	FIRELIGHT-1*				First patient dosed: November 2021 Poster presented: April 2023
Pimasertib MEK 1/2 Inhibitor	MAPK-altered solid tumors ³ (Combo w/tovorafenib)	FIRELIGHT-1*				First patient dosed: May 2022

*Includes patients ≥12 years of age. ¹ FIREFLY-1 Arm 1 expected to support registration. ² DAY101 adult monotherapy Phase 1 dose escalation and expansion trial previously completed. ³ Pimasertib Phase 1 dose escalation and expansion trial previously completed. pLGG, pediatric low-grade glioma. Tovorafenib and Pimasertib are investigational products. Safety and efficacy have not been established by any health authority.

Phase 2 Study Of Monotherapy Tovorafenib (DAY101) In Solid Tumors (FIRELIGHT-1)

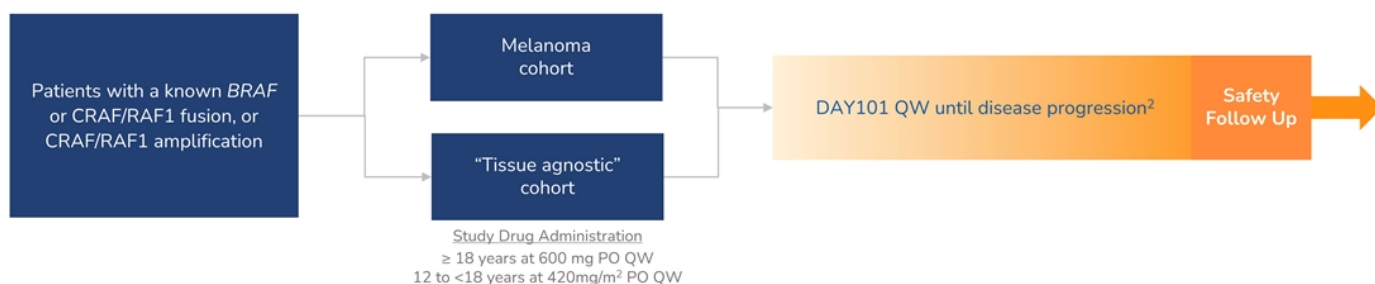


Trial Design¹

- Single arm, open-label, global phase 1b/2a trial
- n = 40 patients (approximately)
- Eligibility: Patients aged 12 years and older with non-hematologic tumor with an activating BRAF fusion, CRAF/RAF1 fusion, or CRAF/RAF1 amplification

Endpoints

- Primary endpoint: ORR by RECIST version 1.1 for non-CNS solid tumors and RANO-HGG criteria for any CNS tumors
- Secondary endpoints: safety and additional efficacy parameters

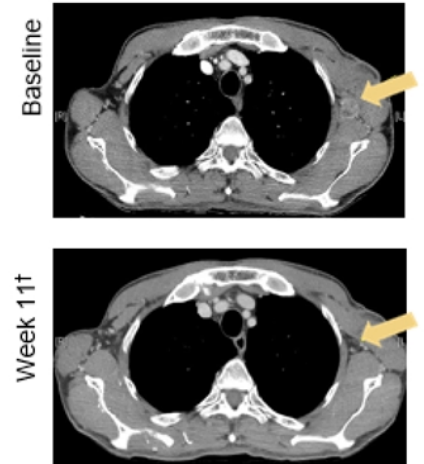


Abbreviations: ORR, objective response rate; QW, once weekly; PO, by mouth; BRAF, B-Raf proto-oncogene. ¹Umbrella master study – DAY101-102 (main protocol) DAY101 and MAPK pathway aberration, Sub-study 1 monotherapy (DAY101-102a), Sub-study 2 MEK combo (DAY101-102b). ²DAY101 QW until disease progression, intolerable toxicity, withdrawal of consent, or death

Preliminary Clinical Activity Of Tovorafenib (DAY101) Monotherapy In BRAF Fusion Melanoma

Patient 1: 53-year-old male with AGK-*BRAF* fusion non-spitzoid cutaneous melanoma

Parameter	Description/outcome
Stage at diagnosis	III
EGOC status	0
Prior therapies	<ul style="list-style-type: none"> Multiple lymphadenectomies and skin lesion excision surgery Pembrolizumab (11 weeks): <ul style="list-style-type: none"> Best response: SD
Tovorafenib treatment to date in FL-1 102a (melanoma cohort)*	<ul style="list-style-type: none"> 600 mg QW 5 cycles with no dose interruption or modifications due to AEs
Antitumor activity results to date*	<ul style="list-style-type: none"> CR (11-week scan)[†]; confirmed at 16 weeks[‡]
Safety results to date*	<ul style="list-style-type: none"> TRAEs: <ul style="list-style-type: none"> Transient rash (G1 and G2) Anemia (G2) TEAE: <ul style="list-style-type: none"> Neck pain (G1)

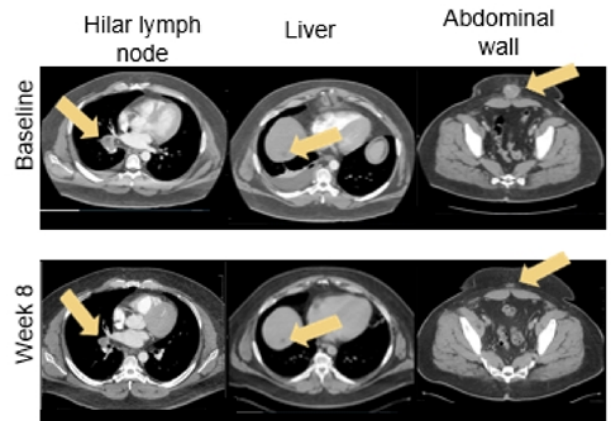


*Data cutoff Feb 8, 2023. [†]Out of window per protocol. [‡]per RECIST v1.1. AE, adverse event; CR, complete response; ECOG, Eastern Cooperative Oncology Group; FL-1, FIRELIGHT-1; G, grade; QW, once weekly; RECIST, response evaluation criteria in solid tumors; SD, stable disease; TEAE, treatment-emergent adverse event; TRAEs, treatment-related adverse events; y/o, years of age.

Preliminary Clinical Activity Of Tovorafenib (DAY101) Monotherapy In BRAF Fusion Melanoma

Patient 2: 35-year-old male with TRIM33-BRAF fusion malignant melanoma

Parameter	Description/outcome
Stage at diagnosis	Unknown
EGOC status	1
Prior therapies	<ul style="list-style-type: none"> Radiation Nivolumab (12 mo, adjuvant setting): <ul style="list-style-type: none"> No best response, disease resected Nivolumab + ipilimumab (3 cycles): <ul style="list-style-type: none"> Best response: PD after 2 mo
Tovorafenib treatment to date in FL-1 102a (melanoma cohort)*	<ul style="list-style-type: none"> 600 mg QW 5 cycles with no dose interruption or modifications due to AEs
Antitumor activity results to date*	<ul style="list-style-type: none"> PR (8-week scan); confirmed at 16 weeks¹
Safety results to date*	<ul style="list-style-type: none"> TRAEs: <ul style="list-style-type: none"> Rash - maculopapular (G1) Headache (G1) Fatigue (G1)

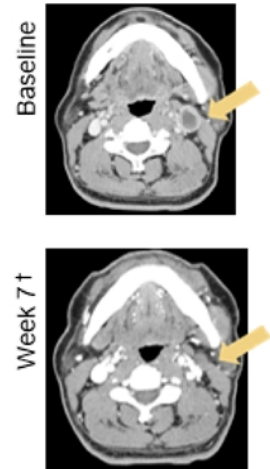


*Data cutoff Feb 8, 2023. ¹per RECIST v1.1. AE, adverse event; ECOG, Eastern Cooperative Oncology Group; FL-1, FIRELIGHT-1; G, grade; mo, months; PD, progressive disease; PR, partial response; QW, once weekly; RECIST, response evaluation criteria in solid tumors; TRAEs, treatment-related adverse events; y/o, years of age.

Preliminary Clinical Activity Of Tovorafenib (DAY101) Monotherapy In BRAF Fusion Melanoma

Patient 3: 71-year-old male with MKRN1-BRAF fusion non-spitzoid cutaneous melanoma

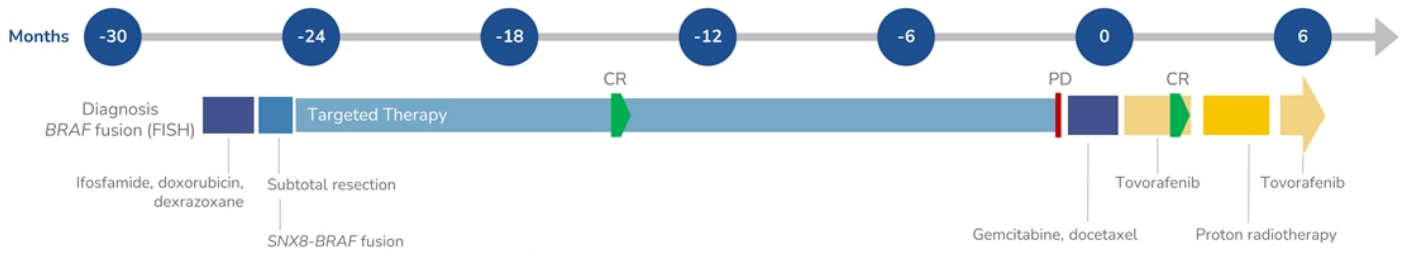
Parameter	Description/outcome
Stage at diagnosis	II
EGOC status	0
Prior therapies	<ul style="list-style-type: none"> • Radiation • Pembrolizumab (2 mo): <ul style="list-style-type: none"> – Best response: SD
Tovorafenib treatment to date in FL-1 102a (melanoma cohort)*	<ul style="list-style-type: none"> • 600 mg QW • 3 cycles with no dose interruption or modifications due to AEs
Antitumor activity results to date*	<ul style="list-style-type: none"> • PR (7-week scan)^{†,‡}; is awaiting a confirmatory scan
Safety results to date*	<ul style="list-style-type: none"> • TRAEs: <ul style="list-style-type: none"> – Urticaria (G1) – Hand-foot syndrome (G1)



*Data cutoff Feb 8, 2023. [†]In window per protocol. [‡]per RECIST v1.1. AE, adverse event; ECOG, Eastern Cooperative Oncology Group; FL-1, FIRELIGHT-1; G, grade; mo, months; PR, partial response; QW, once weekly; RECIST, response evaluation criteria in solid tumors; SD, stable disease; TRAEs, treatment-related adverse events; y/o, years of age.

Activity of Tovorafenib (DAY101) In SNX8:BRAF Fusion Spindle Cell Sarcoma

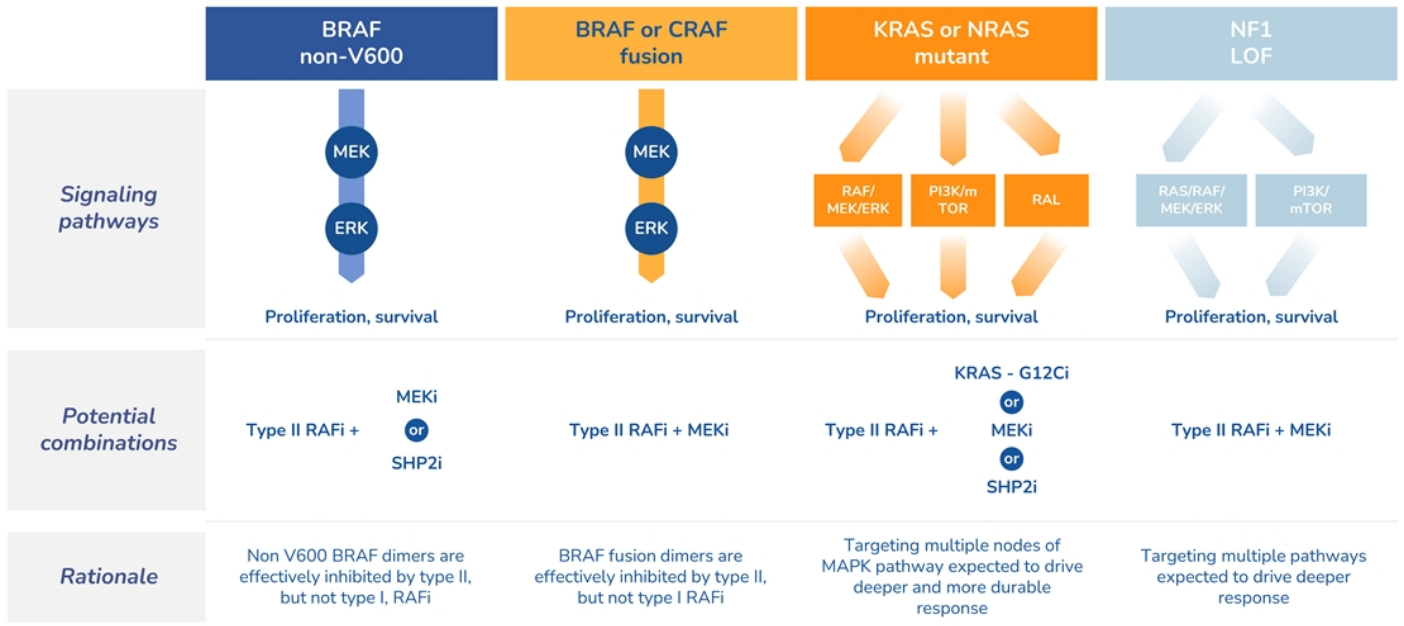
A male child spindle cell sarcoma, 5-years of age at diagnosis



Baseline		After 2 cycles of tovorafenib	

- After the first dose of tovorafenib (DAY101), the patient experienced grade 2 rash, which resolved in a day following a dose of diphenhydramine
- Radiotherapy-related adverse events included hyperpigmentation overlying the spine on the upper back with no skin breaks, and mild dysphagia

Strong Scientific Rationale for Combining Tovorafenib (DAY101) With Additional MAPK Pathway Inhibitors



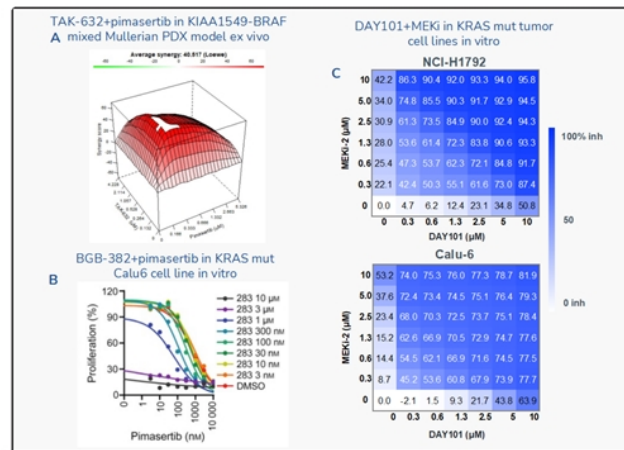
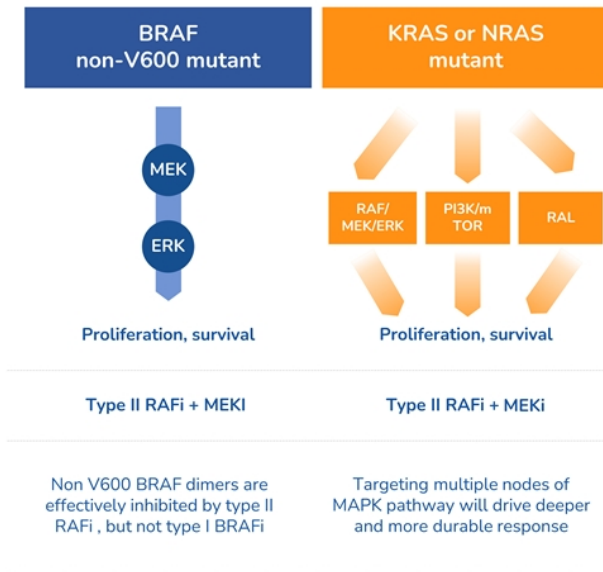
Pimasertib

MEK1/2 Inhibitor

Pimasertib: Investigational Allosteric MEK1/2 Inhibitor With Demonstrated Activity In MAPK-Driven Solid Tumors

- Pimasertib is an investigational orally-bioavailable, selective, non-competitive MEK1/2 inhibitor in-licensed from Merck KGaA in February 2021
- Extensive non-clinical and clinical development work through Phase 2, including a solid tumor trial in Japan and combinations with other MOAs
- Main AEs typical for all in-class allosteric MEK inhibitors (GI, CPK elevation, skin rash, visual disturbances)
- Nearly three-fold higher CNS penetration than other MEKi inhibitors (trametinib or selumetinib)
- Pimasertib showed monotherapy clinical activity, including an improvement in median PFS versus dacarbazine in NRAS mutant melanoma
- Combination with tovorafenib (DAY101) and other targeted therapies may unlock the full value of pimasertib in advanced solid tumors

Vertical MAPK Pathway Inhibition With Tovorafenib (DAY101) And Pimasertib May Unlock Potential Synergy For Adult Solid Tumors



- A** Pan-RAFi + MEKi is synergistic in BRAF fusion melanoma PDX model ex vivo (internal data)
- B** Sensitivity of KRAS Q61 mutant cells to pimasertib is enhanced when cells are treated with the type II BRAF inhibitor BGB-283 (Yuan et al., Mol Onc 2020)
- C** Tovorafenib (DAY101) + MEK inhibitor is synergistic in KRAS G12C and Q61 mutant tumor cells (Venetsanakos et al., 2021 AACR poster presentation)

Tovorafenib (DAY101) / Pimasertib Combination To Be Evaluated In Solid Tumors (FIRELIGHT-1)

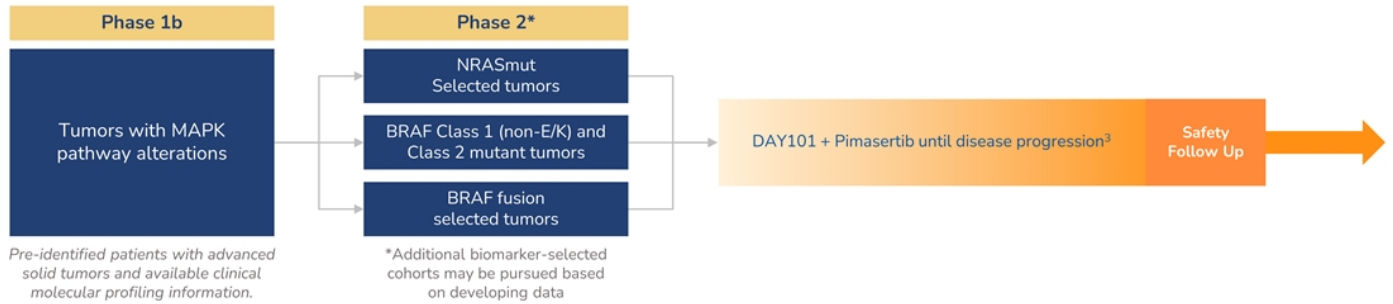


Trial Design¹

- Combination dose escalation, global phase 1b/2 trial²
- Phase 1b, BOIN (adaptive), n = 10/cohort (approximately)
- Phase 2, Simon 2-stage, n = 25/cohort (approximately)
- Eligibility: Patients aged 12 years and older, dose escalation will be performed in advanced solid tumor patients with any MAPK alteration. Expansion cohorts will focus on indications with a potential path to accelerated approval

Endpoints

- Phase 1b: PK, PD and Safety, MTD/RP2D
- Phase 2: Efficacy (ORR, DOR)



Abbreviations: BOIN, Bayesian Optimal Interval Design; BRAF, B-Raf proto-oncogene, serine/threonine kinase; MAPK, mitogen-activated protein kinase; NRAS, neuroblastoma rat sarcoma viral oncogene.

¹Umbrella master study – DAY101-102 (main protocol) DAY101 and MAPK pathway aberration, Sub-study 1 monotherapy (DAY101-102a), Sub-study 2 MEK combo (DAY101-102b).

²Intend to open U.S. and ex-U.S. clinical sites. ³DAY101 + Pimasertib until disease progression, intolerable toxicity, withdrawal of consent, or death

Summary

Financial Summary: DAWN

Cash, cash equivalents and short-term investments as of March 31, 2023: \$318.2 million (no debt)

73.6 million shares of common stock outstanding as of April 25, 2023

\$ Millions	Three Months Ended 3/31/23	Three Months Ended 3/31/22
R&D Expense	\$27.8	\$15.0
G&A Expense	\$18.0	\$12.7
Net Loss	\$42.4	\$27.7

Projected cash runway into 2025²

FIREFLY-1: Pivotal Phase 2 clinical trial of tovorafenib (DAY101)

- Initiated rolling NDA¹ submission in May 2023
- New clinical data presented in June 2023
- Expected completion of rolling NDA submission in October 2023

FIREFLY-2/LOGGIC: Pivotal Phase 3 clinical trial of tovorafenib (DAY101) in newly diagnosed pLGG

- First patient dosed in March 2023

Next Steps



FIREFLY-1

- Initiated rolling NDA submission in May 2023
- New clinical data presented in June 2023
- Expected completion of rolling NDA submission in October 2023

FIREFLY-2

- Advance tovorafenib as a front-line therapy for patients newly diagnosed with pLGG

FIRELIGHT-1

- Evaluate tovorafenib in combination and as monotherapy in adolescent and adult populations
- Monotherapy abstract presented at EADO in April 2023

Commercial

- Continue investment in market and launch preparation activities

Business Development

- Further investment in business development activities to expand our multiple asset portfolio

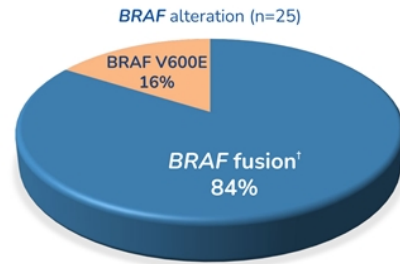
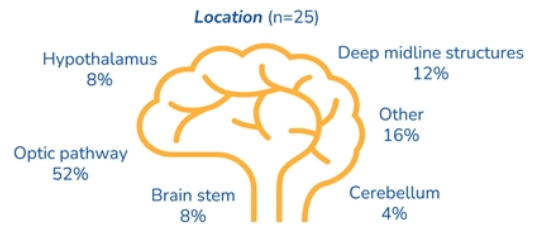


Appendix

Day One
BIOPHARMACEUTICALS

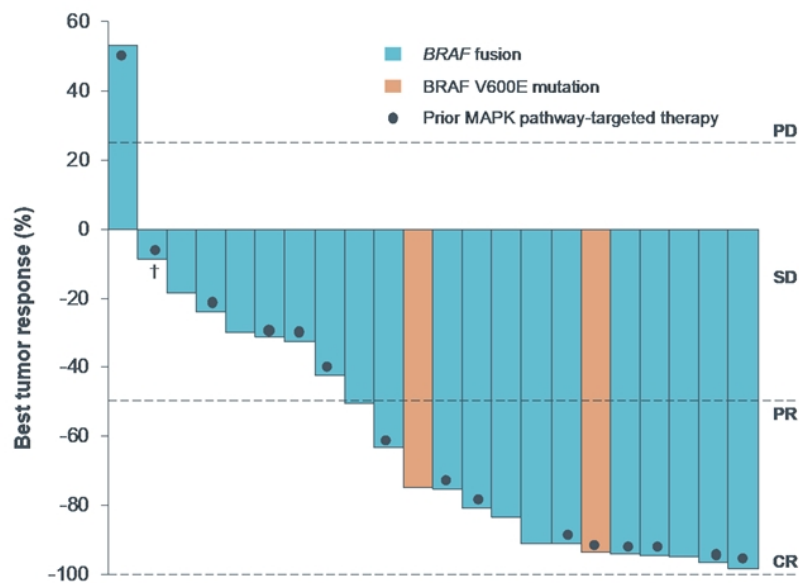
FIREFLY-1 Baseline Characteristics

Characteristic	Arm 1 (N=25)
Median age, years (range)	8 (3-18)
Sex, n (%)	
Male	13 (52)
Female	12 (48)
Race, n (%)	
Black or African American	1 (4)
Asian	2 (8)
White	15 (60)
Other*	7 (28)
Karnofsky/Lansky performance status, n (%)	
50-70	1 (4)
80-100	24 (96)
Number of lines of prior therapy	
Median (range)	3 (1-9)
1, n (%)	5 (20)
2, n (%)	6 (24)
≥3, n (%)	14 (56)
Prior MAPK pathway targeted therapy, n (%)	
Yes	18 (72)
No	7 (28)



Apr 14, 2022 data cutoff; *Includes 4 patients with race not specified. †Includes 2 patients with BRAF duplication and 1 with BRAF rearrangement per fluorescence in situ hybridization. MAPK, mitogen-activated protein kinase; prior MAPK pathway targeted therapy indicates either prior MEKi and/or prior type I RAFi therapy.

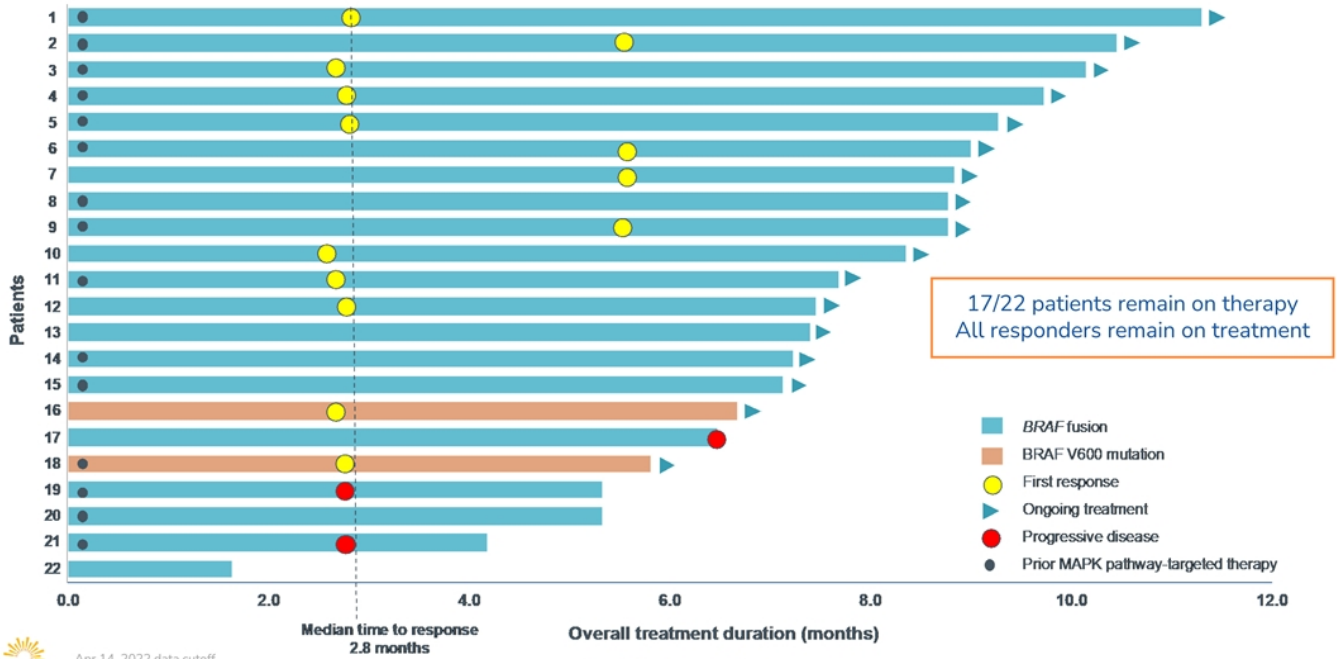
Tumor Response To Tovorafenib (DAY101) For All Patients With RANO-HGG Evaluable Lesions (n=22)*



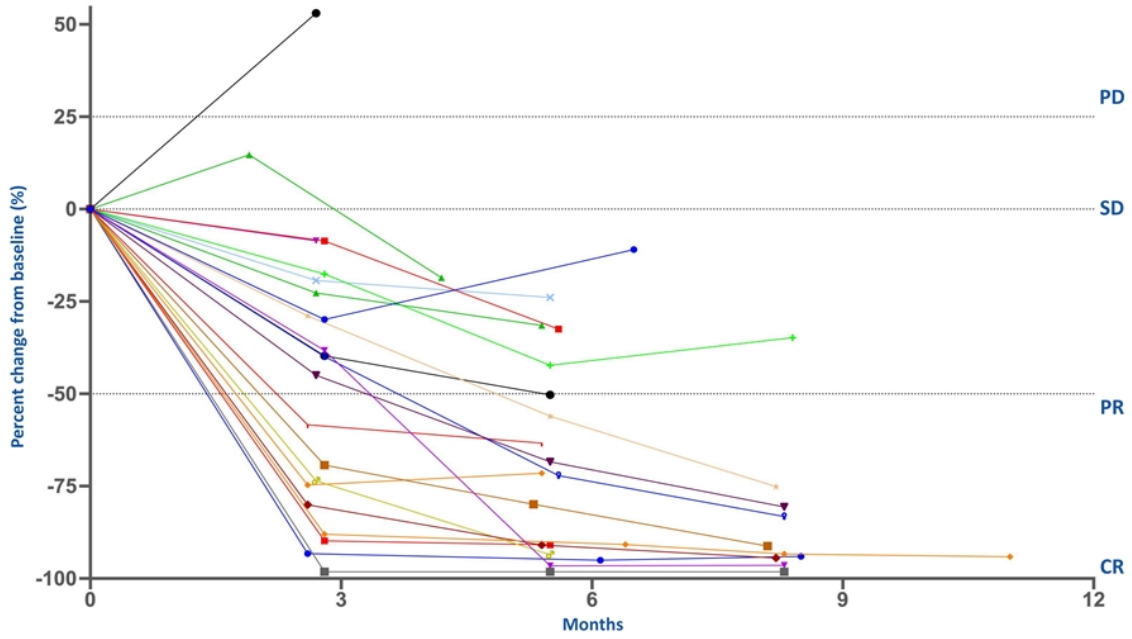
Response (IRC)	RANO-HGG Evaluable N=22*
ORR (95% CI)	64% (41-83)
• BRAF fusion (n=20)	60%
• BRAF V600E (n=2)	100%
CBR#	91%
Best overall response	
• PR (13/22)	59%
• uPR (1/22)	5%
• SD (6/22)	27%

Apr 14, 2022 data cutoff. Total % of response maybe may be different than the sum of the individual overall response due to rounding. *3/25 patients lacked evaluable lesions per RANO criteria based on IRC evaluation. †Progressive disease due to presence of new lesions. #patients with best overall response of CR, PR/uPR and SD. CBR, clinical benefit rate; IRC, independent radiological review committee; ORR, overall response rate; MAPK, mitogen-activated protein kinase; PR, partial response; SD, stable disease; uPR, unconfirmed partial response.

Duration Of Tovorafenib (DAY101) Therapy For All Patients With RANO-HGG Evaluable Lesions (n=22)



Individual Patient Tumor Change From Baseline (n=22 RANO-HGG Evaluable By Blinded Independent Central Review)



Apr 14, 2022 data cutoff. RANO PD = $\geq +25\%$ change from baseline;
RANO SD = $< +24\%$ to $> -50\%$ change from baseline; RANO PR = $\leq -50\%$
change from baseline; RANO CR = -100% change from baseline.

Day One Biopharmaceuticals

Tovorafenib (DAY101) Safety Data For The First 25 Enrolled Patients (TEAEs \geq 25% Any Grade)

Preferred term, n (%)	Treatment-emergent AEs		Treatment-related AEs	
	Any grade	Grade \geq 3	Any grade	Grade \geq 3
Blood creatine phosphokinase increased	20 (80)	2 (8)	18 (72)	2 (8)
Hair color changes	17 (68)	-	17 (68)	-
Anemia	14 (56)	3 (12)	10 (40)	2 (8)
Aspartate aminotransferase increased	14 (56)	-	12 (48)	-
Vomiting	14 (56)	2 (8)	6 (24)	1 (4)
Rash*	13 (52)	3 (12)	13 (52)	3 (12)
Blood lactate dehydrogenase increased	12 (48)	-	9 (36)	-
Headache	10 (40)	-	3 (12)	-
Dry skin	9 (36)	-	7 (28)	-
Epistaxis	9 (36)	-	4 (16)	-
Constipation	8 (32)	-	5 (20)	-
Hypocalcemia	8 (32)	-	6 (24)	-
Nausea	8 (32)	-	3 (12)	-
Alanine aminotransferase increased	7 (28)	1 (4)	4 (16)	1 (4)
Fatigue	7 (28)	-	7 (28)	-

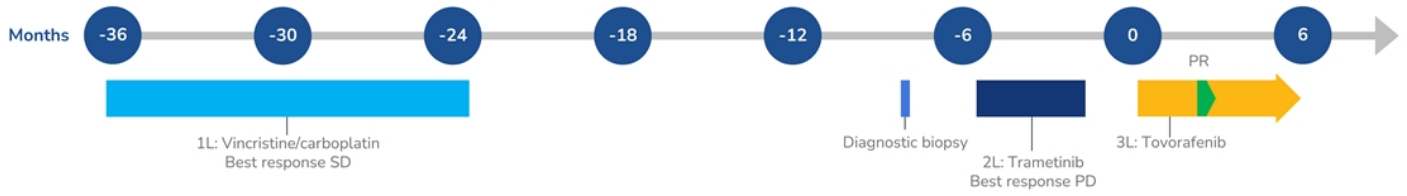
- Most treatment-emergent AEs were grade 1 or 2 (96%)
- Other important treatment-emergent AEs included:
 - Decreased weight (24%)
 - Decreased appetite (16%)
 - Hyponatremia (16%)
- 7 patients (28%) required dose modifications due to treatment-related AEs
- No patient discontinued treatment due to AEs

Key Takeaways

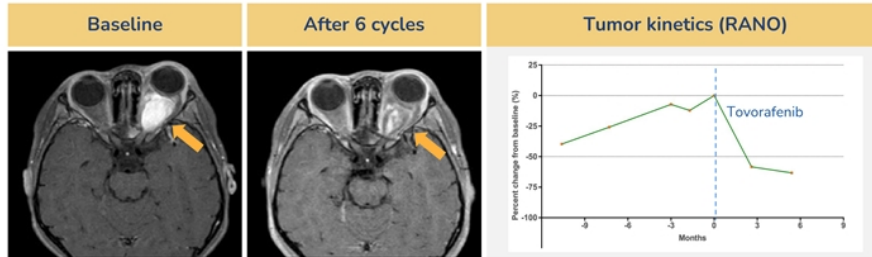
- **Encouraging initial efficacy data from FIREFLY-1 for pediatric patients with recurrent or progressive LGG harboring BRAF fusion or BRAF V600 mutation, for whom there is no standard-of-care and no approved agents for the majority of patients**
 - 64% ORR and 91% clinical benefit rate (partial response/unconfirmed partial response + stable disease) in the 22 RANO-HGG evaluable patients:
 - 14 partial responses (13 confirmed responses and 1 unconfirmed response)
 - 6 patients with stable disease
 - All patients with stable disease (n=6) were noted to have tumor shrinkage, ranging between 19% and 43%
 - Responses were observed in patients with both BRAF fusions and BRAF V600E mutations who received prior MAPK-targeted therapy
 - The median-time-to-response was 2.8 months
 - A heavily-pretreated population, with a median of 3 prior lines of therapy (range: 1-9)
 - All patients who responded remain on therapy (n=14) and no patients have discontinued treatment due to treatment-related adverse events
- **Initial safety data, based on the first 25 patients, indicated monotherapy tovorafenib (DAY101) to be generally well-tolerated**
 - Majority of AEs were grade 1 or 2; most common treatment-related AEs were CPK elevation, rash, and hair color changes
 - Treatment-related AEs of grade 3 or greater occurred in nine patients (36%)
- **Plan to present additional initial study results from FIREFLY-1 at the Society for Neuro-Oncology (SNO) annual meeting**
- **Topline results from the full registrational cohort (n=~60) of FIREFLY-1 expected to be available 1Q 2023, with NDA submission planned for Q2 2023**
- **Early results from FIREFLY-1 support plan to evaluate tovorafenib (DAY101) in parallel with a pivotal Phase 3 frontline pLGG study (FIREFLY-2)**
 - Primary endpoint of ORR based on RANO-LGG (2017)¹ criteria, assessed by blinded independent central review

Case Study: Activity Of Tovorafenib (DAY101) In KIAA1549-BRAF Fusion Optic Pathway Glioma

A 7-years-old female child with an optic pathway glioma, with very poor vision, entropion, folliculitis, eczema, mouth ulceration and xerosis

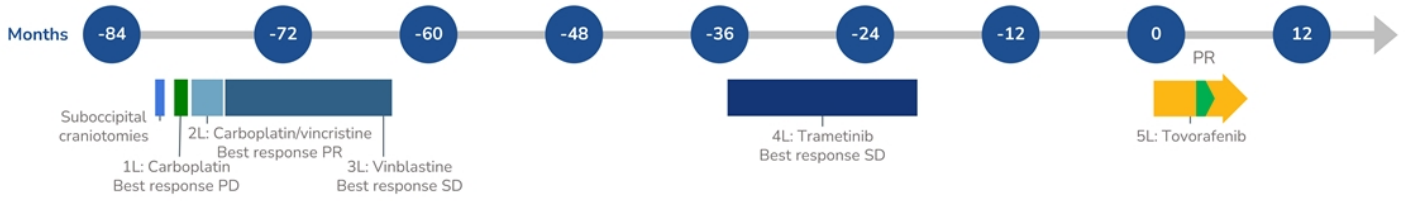


- PR (-58%) and improvement in vision reported at cycle 3
- AEs included grade 3 erythematous rash requiring dose interruption and dose reduction (400 mg QW to 300 mg QW in cycle 1), and grade 2 eczema and maculopapular rash
- Patient continues to receive weekly tovorafenib

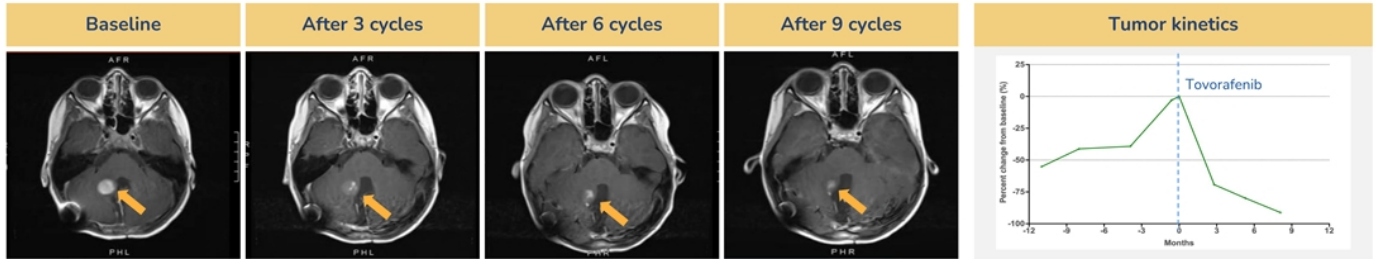


Case Study: Activity Of Tovorafenib (DAY101) In KIAA1549-BRAF Fusion Posterior Fossa Pilocytic Astrocytoma

An 8-years-old female child with a posterior fossa pilocytic astrocytoma, eczema, nausea and constipation



- PR (-69%) at cycle 3 with 500 mg QW tovorafenib, with a deepening of response (80% and 91% in cycles 6 and 9, respectively) over time
- AEs included grade 2 decrease in neutrophil count, pustular rash, and upper respiratory infection
- Patient continues to receive weekly tovorafenib

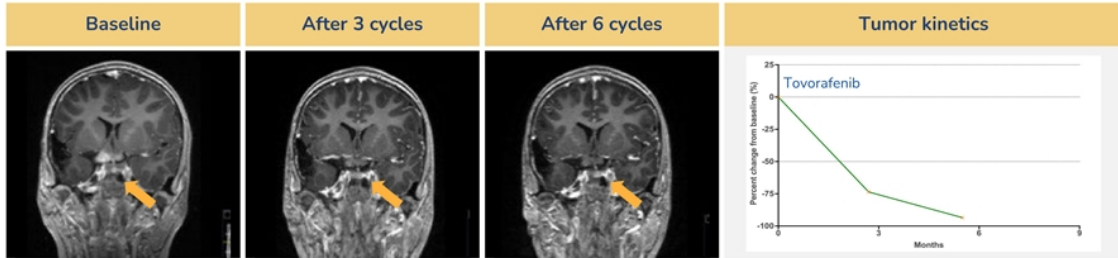


Case Study: Activity Of Tovorafenib (DAY101) In BRAF V600E Mutation Deep Midline Astrocytoma

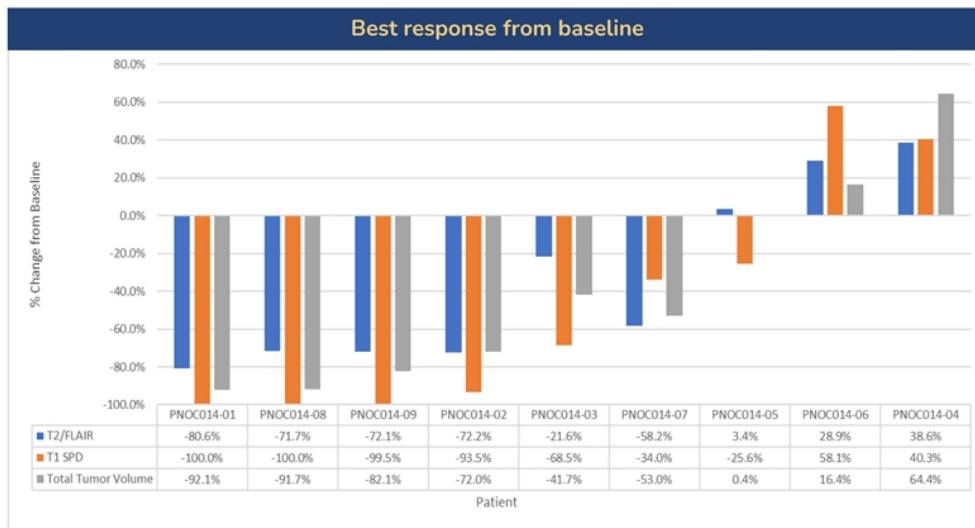
A 9-year-old female child with deep midline BRAF V600E-mutant astrocytoma with precocious puberty



- PR (-74%) at cycle 3, with a deepening of response (-94%) at cycle 6
- AEs included grade 3 maculopapular rash and increased CPK, requiring drug interruption and dose reduction (500 mg QW to 400 mg QW in cycle 1)
- Tovorafenib dose was re-escalated back to 500 mg QW in cycle 4; patient continues on treatment



Results From Independent Radiology Review Of PNOC014



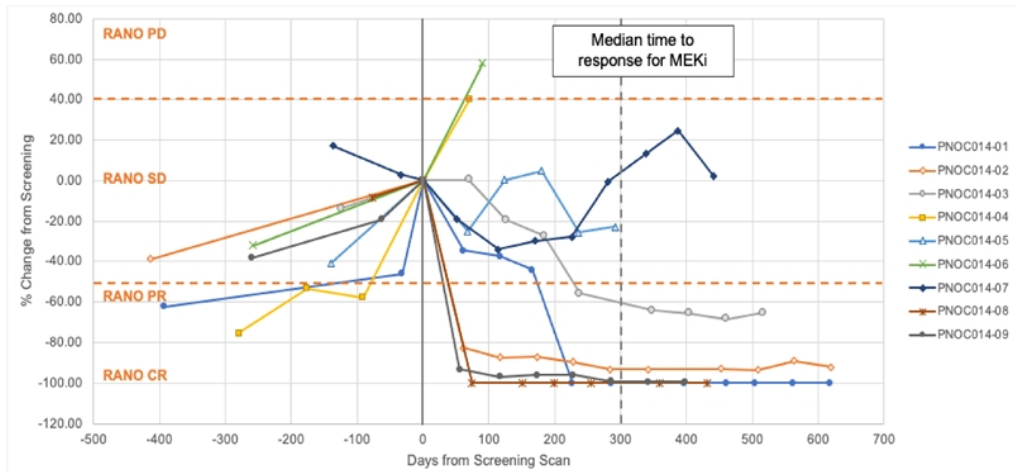
RANO-HGG: Response assessment for neuro-oncology-high grade glioma

Volumetric image analysis (exploratory)

RAPNO: Response assessment for pediatric neuro-oncology (exploratory)

Multiple Rapid, Deep And Durable Responses Observed Following Initiation Of Tovorafenib (DAY101) Treatment Of pLGG Patients In PNOC014

Growth kinetics of Target Lesions from Screening



Drug-related Adverse Events Observed for Tovorafenib (DAY101) in PNOC014 Showed Favorable Safety and Tolerability Profile in pLGG

DAY101 AE summary

- Most common toxicity: skin
- AEs reversible and all manageable
- Single, reversible Grade 3 event
- No Grade 4 AEs
- No dose reductions (vs. 40% of patients on selumetinib monotherapy required dose reductions)

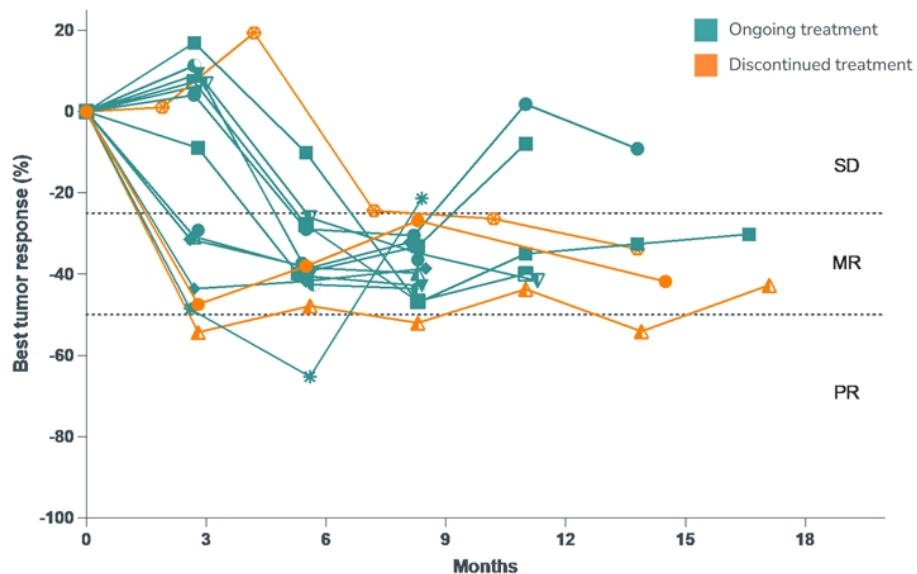
Drug-related AEs for Tovorafenib (DAY101)

Toxicities	Grade 1-2	Grade 3	Grade 4
Anemia	6 (67%)		
Hypophosphatemia	4 (44%)		
Fatigue	5 (55%)		
Rash	8 (89%)		
Achromotrichia	7 (78%)		
Pruritis	6 (67%)		
Photosensitivity	1 (11%)		
Nevus	7 (78%)		
Alopecia	3 (34%)		
Epistaxis	2 (22%)		
Dry skin	3 (34%)		
Myalgias/arthralgias	3 (34%)		
Anorexia	2 (22%)		
Cheilitis	3 (34%)		
Hypermagnesemia	1 (11%)		
Bleeding gums	1 (11%)		
Increased AST	4 (44%)		
Nausea/vomiting	3 (33%)		
CPK elevation		1 (11%)	
Weight loss	2 (22%)		

Drug-related AEs for selumetinib

Toxicities	Grade 1-2	Grade 3	Grade 4
Increased ALT	20 (40%)	1 (2%)	
CPK elevation	34 (68%)	5 (10%)	
Diarrhea	27 (54%)	2 (4%)	
Decreased ejection fraction	19 (38%)	1 (2%)	
Gastric haemorrhage		1 (2%)	
Headache	14 (28%)	1 (2%)	
Decreased lymphocyte count	19 (38%)		1 (2%)
Neutropenia	14 (28%)	3 (6%)	
Paronychia	19 (38%)	3 (6%)	
Rash (acneiform)	29 (58%)	2 (4%)	
Rash (maculopapular)	26 (52%)	5 (10%)	
Skin infection	7 (14%)	1 (2%)	
Tooth infection		1 (2%)	
Weight gain	5 (10%)	1 (2%)	
Vomiting	22 (44%)		
Nausea	21 (42%)		
Increased AST	25 (50%)		
Anemia	28 (56%)		
Pruritis	10 (20%)		
Dyspnea	30 (60%)		

The Majority Of Patients With RANO-LGG Confirmed Minor Response Remain On Treatment (n=15)



12/15 patients with confirmed minor response by RANO-LGG remain on treatment as of May 23, 2023



Day One Announces New FIREFLY-1 Data for Tovorafenib (DAY101) and Initiation of Rolling NDA Submission to FDA for Relapsed or Progressive Pediatric Low-Grade Glioma

Overall response rate (ORR) of 67% and clinical benefit rate (CBR) of 93% in 69 heavily pretreated RANO-HGG evaluable patients

The Company expects to complete rolling NDA submission in October 2023

Conference call and webcast today at 6:00 p.m. CT

BRISBANE, Calif., June 4, 2023 – Day One Biopharmaceuticals (Nasdaq: DAWN) (“Day One” or the “Company”), a clinical-stage biopharmaceutical Company dedicated to developing and commercializing targeted therapies for people of all ages with life-threatening diseases, today announced new data from the registrational Phase 2 FIREFLY-1 trial evaluating the investigational agent tovorafenib (DAY101). These data were shared in an oral presentation today at the 2023 American Society of Clinical Oncology (ASCO) Annual Meeting. In addition, the Company announced that it has initiated a rolling New Drug Application (NDA) to the U.S. Food and Drug Administration (FDA) for tovorafenib as a monotherapy in relapsed or progressive pediatric low-grade glioma (pLGG).

“We believe the data presented at ASCO for monotherapy tovorafenib demonstrate durable responses in children with relapsed pLGG who have limited treatment options,” said Jeremy Bender, Ph.D., chief executive officer of Day One. “Based on the strength of the safety and efficacy data we’ve observed to date, we believe tovorafenib has a compelling clinical profile. We’re looking forward to continuing our collaboration with the FDA as we submit the remainder of the data over the next several months.”

FIREFLY-1 Program Update

In May 2023, the Company initiated a rolling submission of the NDA to the FDA. The rolling submission allows Day One to submit portions of the regulatory application and have them reviewed by the FDA on an ongoing basis. The Company anticipates the rolling NDA submission of tovorafenib will be complete in October 2023 following submission of an amended clinical study report (CSR) that will include safety and efficacy data from a planned June 2023 data cutoff.

Updated FIREFLY-1 Data Presented at ASCO

FIREFLY-1, an open-label, pivotal Phase 2 trial, treated 77 patients and evaluated tovorafenib as a once-weekly monotherapy in patients aged 6 months to 25 years with relapsed or progressive pLGG (Arm 1). The primary endpoint of the FIREFLY-1 trial is overall response rate (ORR) by Response Assessment for Neuro-Oncology High-Grade Glioma (RANO-HGG) criteria as assessed by blinded independent central

review. Secondary endpoints include ORR by Response Assessment in Pediatric Neuro-Oncology Low-Grade Glioma (RAPNO-LGG), progression-free survival (PFS), duration of response (DOR), time to response, clinical benefit rate and safety. The study also includes an exploratory analysis of ORR by Response Assessment Neuro-Oncology Low-Grade Glioma (RANO-LGG).

New data from the FIREFLY-1 trial, with a data cutoff of December 22, 2022, were presented at ASCO by Dr. Lindsay Kilburn of Children's National Medical Center.

Patient demographics in registrational Arm 1 (n=77):

- 83% (n=64) of patients had a BRAF fusion, for which there are no approved systemic therapies, while the remaining 17% (n=13) had a BRAF V600E mutation
- Participants were heavily pretreated, with a median of two prior lines of systemic therapy (range: 1-9) and 49% (n=38) of patients having 3 or more prior lines of therapy
- 60% (n=46) of patients had already received at least one prior MAPK inhibitor prior to study participation

RANO-HGG (n=69) data:

- 67% ORR by RANO-HGG, the primary endpoint of the trial
- 93% clinical benefit rate (complete response (CR) + partial response (PR) + stable disease (SD))
 - 6% (n=4) CR
 - 61% (n=42) PR, including 3 uPR
 - 26% (n=18) SD
- At the time of data cutoff, the median duration of response (DOR) based on RANO-HGG criteria was not yet reached (95% CI: 9.0 months, not estimable)

Among a total of 77 treated patients:

- The median duration of tovorafenib treatment was 10.8 months, with 74% (n=57) of patients on treatment at the time of data cutoff

Safety data, based on the 136 patients treated in both Arm 1 and Arm 2 of FIREFLY-1, indicated monotherapy tovorafenib to be generally well-tolerated. The vast majority of adverse events were Grade 1 or Grade 2, with most common side effects reported related to tovorafenib being change in hair color (71%), fatigue (50%), vomiting (43%), maculopapular rash (41%) and headache (39%). The most commonly reported lab abnormalities were CPK elevation, anemia, hypophosphatemia and AST elevation. Nearly all of the lab abnormalities had no clinical manifestations and did not require clinical intervention or change in study treatment.

"We have observed tovorafenib as being well tolerated in children and is resulting in clinically meaningful responses in patients, many of whom have tumors which have progressed in spite of multiple prior therapies," said Dr. Lindsay Kilburn, Children's National Medical Center.

Additional Secondary and Exploratory Endpoint Analyses

The Company also shared the evaluation of responses by RAPNO-LGG and RANO-LGG. Those results include:

- * RAPNO-LGG data (n=69):
 - 51% (n=35) ORR by RAPNO-LGG
 - 25% (n=17) PR including 4 uPR
 - 26% (n=18) MR including 4 uPR
 - 36% (n=25) patients with SD
 - The median time to response was 5.5 months for confirmed responses
 - At the time of data cutoff, the median Independent Review Committee (IRC)-assessed DOR based on confirmed RAPNO-LGG responses is 12 months (95% CI: 11.2, not estimable)

**Pending adjudication*

RANO-LGG (n=76) data:

- 49% (n=37) ORR by RANO-LGG
 - 26% (n= 20) PR including 8 uPR
 - 22% (n= 17) MR including 2 uMR
 - 34% (n=26) patients with SD
- The median time to response was 4.2 months for confirmed responses
- At the time of data cutoff, the median IRC-assessed DOR based on confirmed RANO-LGG responses is 14.4 months (95% CI: 8.4, not estimable)

“When we look at the clinical activity of monotherapy tovorafenib in FIREFLY-1, we are seeing high rates of durable tumor reduction in this heavily pre-treated population, and a safety profile that allows for potential long-term dosing. For a patient population in which the goal of therapy has historically been prolonged disease stabilization, we are seeing meaningful responses across various assessment criteria,” said Dr. Samuel Blackman, co-founder and head of research and development, Day One. “We look forward to following the data as we continue to collaborate with the FDA to complete our NDA submission and potentially bring a new medicine to these underserved children.”
The presentation is accessible on the Day One investor website.

Conference Call and Webcast Information

Day One will host a conference call and webcast on June 4, 2023, at 6:00 p.m. CT. Participants can access the conference call live via webcast from the Investors & Media page of Day One’s website. To participate via telephone, please register in advance at this link. Upon registration, all telephone participants will receive a confirmation email detailing how to join the conference call, including the dial-in number along with a unique passcode that can be used to access the call.

The webcast will be made available for replay on the Company’s website after the event and will be available for 30 days following the live presentation.

About Pediatric Low-Grade Glioma

Pediatric low-grade glioma (pLGG) is the most common brain tumor diagnosed in children, accounting for 30% – 50% of all central nervous system tumors. BRAF wild-type fusions are the most common cancer-causing genomic alterations in pLGG. These genomic alterations are also found in several adult and pediatric solid tumors.

Pediatric low-grade glioma can impact a child's health in many ways depending on tumor size and location, including vision loss and motor dysfunction. There are no approved therapies for the vast majority of patients with pLGG, and current treatment approaches are associated with potential acute and life-long adverse effects. While most children with pLGG survive their cancer, children who do not achieve remission following surgery may face years of increasingly aggressive therapies. Due to the indolent nature of pLGG, patients generally receive multiple years of systemic therapy.

About FIREFLY-1

FIREFLY-1 is evaluating tovorafenib as once-weekly monotherapy in patients aged 6 months to 25 years with relapsed or progressive pLGG harboring a known activating BRAF alteration. The trial is being conducted in collaboration with the Pacific Pediatric Neuro-Oncology Consortium (PNOC). The primary endpoint is overall response rate (ORR), defined as the proportion of patients with confirmed response based upon RANO-HGG criteria. Secondary and exploratory endpoints include the overall response rate based on RAPNO-LGG criteria, RANO-LGG criteria and volumetric analyses, progression-free survival, safety, functional outcomes, and quality of life measures. RANO-HGG, RANO-LGG and RAPNO-LGG are assessed by blinded independent central review. Additional information about FIREFLY-1 may be found at [ClinicalTrials.gov](https://clinicaltrials.gov/ct2/show/study/NCT04775485), using Identifier NCT04775485.

About the Pacific Pediatric Neuro-Oncology Consortium The Pacific Pediatric Neuro-Oncology Consortium (PNOC) is an international consortium with study sites within the United States, Canada, Europe and Australia dedicated to bringing new therapies to children and young adults with brain tumors.

About Tovorafenib

Tovorafenib is an investigational, oral, brain-penetrant, highly-selective type II pan-RAF kinase inhibitor designed to target a key enzyme in the MAPK signaling pathway, which is being investigated in primary brain tumors or brain metastases of solid tumors. Tovorafenib has been studied in over 325 patients to date. Currently tovorafenib is under evaluation in a pivotal Phase 2 clinical trial (FIREFLY-1) among pediatric, adolescent and young adult patients with relapsed or progressive pLGG, which is an area of considerable unmet need with no approved therapies for the vast majority of patients. Tovorafenib is also being evaluated alone or as a combination therapy for adolescent and adult patient populations with recurrent or progressive solid tumors with MAPK pathway aberrations (FIRELIGHT-1).

Tovorafenib has been granted Breakthrough Therapy and Rare Pediatric Disease designations by the U.S. Food and Drug Administration (FDA) for the treatment of patients with pLGG harboring an activating RAF alteration. Tovorafenib has also received Orphan Drug designation from the FDA for the treatment of malignant glioma, and from the European Commission (EC) for the treatment of glioma.

About Day One Biopharmaceuticals

Day One Biopharmaceuticals is a clinical-stage biopharmaceutical Company that believes when it comes to pediatric cancer, we can do better. We put kids first and are developing targeted therapies that deliver to their needs. Day One was founded to address a critical unmet need: the dire lack of therapeutic development in pediatric cancer. The Company's name was inspired by "The Day One Talk" that physicians have with patients and their families about an initial cancer diagnosis and treatment plan. Day One aims to re-envision cancer drug development and redefine what's possible for all people living with cancer—regardless of age—starting from Day One.

Day One partners with leading clinical oncologists, families, and scientists to identify, acquire, and develop important emerging cancer treatments. The Company's lead product candidate, tovorafenib, is an investigational, oral, brain-penetrant, highly-selective type II pan-RAF kinase inhibitor. The Company's pipeline also includes pimasertib, an investigational, oral, highly-selective small molecule inhibitor of mitogen-activated protein kinases 1 and 2 (MEK-1/-2). Day One is based in Brisbane, California. For more information, please visit www.dayonebio.com or find the Company on LinkedIn or Twitter.

Cautionary Note Regarding Forward-Looking Statements

This press release contains "forward-looking" statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including, but not limited to: Day One's plans to develop cancer therapies, expectations from current clinical trials, the execution of the Phase 2 and Phase 3 clinical trials for tovorafenib as designed, any expectations about safety, efficacy, timing and ability to complete clinical trials, release data results and to obtain regulatory approvals for tovorafenib and other candidates in development, and the ability of tovorafenib to treat pLGG or related indications.

Statements including words such as "believe," "plan," "continue," "expect," "will," "develop," "signal," "potential," or "ongoing" and statements in the future tense are forward-looking statements. These forward-looking statements involve risks and uncertainties, as well as assumptions, which, if they do not fully materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements.

Forward-looking statements are subject to risks and uncertainties that may cause Day One's actual activities or results to differ significantly from those expressed in any forward-looking statement, including risks and uncertainties in this press release and other risks set forth in our filings with the Securities and Exchange Commission, including Day One's ability to develop, obtain regulatory approval for or commercialize any product candidate, Day One's ability to protect intellectual property, the potential impact of global business or macroeconomic conditions, including as a result of inflation, rising interest rates, instability in the global banking system, and geopolitical conflicts and the sufficiency of Day One's cash, cash equivalents and investments to fund its operations. These forward-looking statements speak only as of the date hereof and Day One specifically disclaims any obligation to update these forward-looking statements or reasons why actual results might differ, whether as a result of new information, future events or otherwise, except as required by law.

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