

**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): **March 20, 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 March 20, 2023, Day One Biopharmaceuticals, Inc. updated its corporate presentation. A copy of the updated presentation is attached as Exhibit 99.1 to this report.

The information in this Current Report on Form 8-K, including Exhibit 99.1 to this report, shall not be deemed to be “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), or otherwise subject to the liabilities of that section or Sections 11 and 12(a) (2) of the Securities Act of 1933, as amended (the “Securities Act”). The information contained in this Current Report on Form 8-K and in the accompanying Exhibit 99.1 shall not be incorporated by reference into any other filing under the Exchange Act or under the Securities Act, except as shall be expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	Corporate Presentation
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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: March 20, 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

March 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 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 pimasertib 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 the COVID-19 pandemic, inflation and rising interest rates, 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 Annual Report on Form 10-K 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 pan-RAF inhibitor
- Being studied 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 2025
- Upcoming key milestones
 - Pre-NDA meeting in Q2 2023
 - Planned NDA submission in Q2 2023
 - NDA data set will include additional follow up with data to be presented at a medical meeting in Q2 2023¹

¹NDA data set will include analysis of primary (ORR by RANO-HGG) and secondary (ORR by RAPNO, PFS) efficacy endpoints, safety, and exploratory analyses (including ORR by RANO-LGG). Day One Biopharmaceuticals

A Senior Team with Deep Experience Developing and Commercializing Products in Pediatric and Adult Oncology Markets



Jeremy Bender, PhD, MBA
Chief Executive Officer

VP of Corporate Development at Gilead; COO Tizona Therapeutics; CBO Sutro Biopharma; founding Board member of VaxCyt



Samuel Blackman, MD, PhD
Chief Medical Officer & Founder

Pediatric Heme/Onc and Neuro-Onc; Oncology Clinical Development at Mavupharma, Silverback, Juno, Seattle Genetics, GSK



Charles York II, MBA
Chief Operating and Financial Officer

CFO and Head of Corporate Development at Aeglea; Consulting CFO at Bridgepoint Consulting; PricewaterhouseCoopers



Mike Preigh, PhD
Chief Technical Officer

Head of CMC at Array for 10+ years. Brought >20 drug candidates to IND & clinical development



Davy Chiodin, PharmD
Chief Development Officer

VP Regulatory Science, Acerta/AZ; Global Regulatory Leader, Pediatric Oncology, Roche/Genentech



Jaa Roberson
Chief People Officer

Head of Human Resources at Bellicum Pharmaceuticals; Human Resources Roles at Achaogen, Roche/Genentech



Adam Dubow
General Counsel

Chief Compliance & Ethics Officer at Bristol Myers Squibb (BMS); Legal leadership roles at BMS in the U.S., Asia and Europe; Partner at Sedgwick, Detert, Moran & Arnold

Our Pipeline

Product Candidate	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Recent & Anticipated Milestones
Tovorafenib (DAY101) Type II Pan-RAF Inhibitor ✓ 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) 				Topline data presented: January 2023 Pre-NDA meeting & NDA submission planned: Q2 2023 NDA data set presentation planned: Q2 2023
	Frontline pLGG	FIREFLY-2 (pivotal) 				First patient dosed: March 2023
	RAF-altered solid tumors ² (monotherapy)	FIRELIGHT-1* 				First patient dosed: November 2021 Abstract accepted for presentation: Q2 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.
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Tovorafenib (DAY101)

Type II Pan-RAF Inhibitor

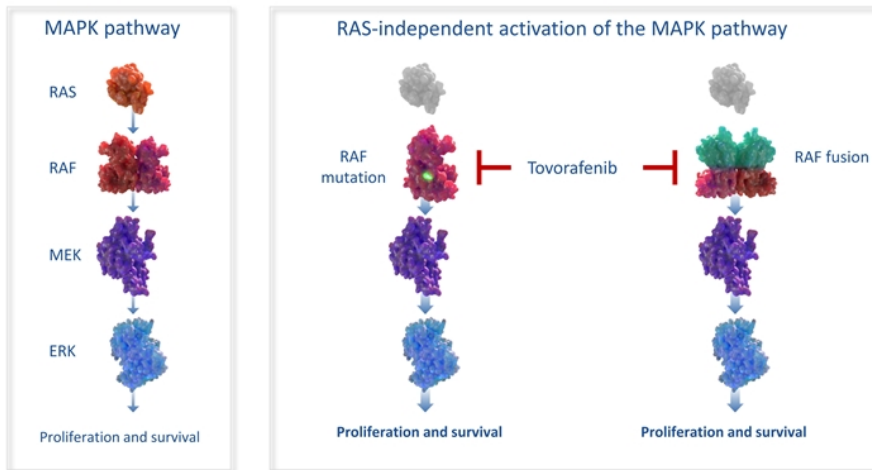
Pediatric Low-Grade Gliomas (pLGG)



6 y/o with large relapsed BRAF fusion-positive optic pathway glioma

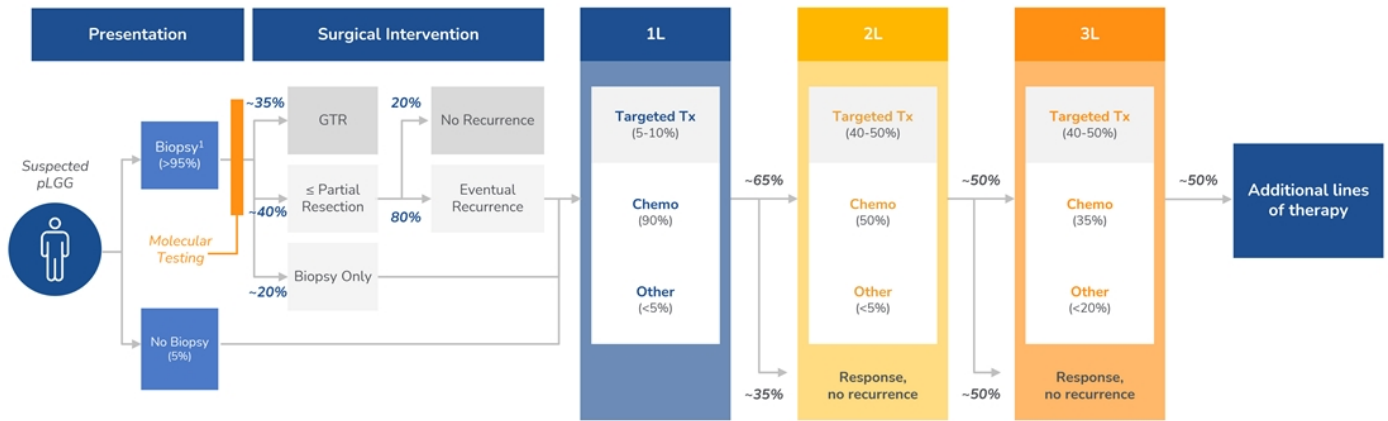
- Despite being the most common brain tumor in children, there are no approved agents and no standard-of-care for the majority of patients with relapsed/progressive disease^{1,2}
 - ~70% of patients will require systemic therapy
 - Patients have a high rate of recurrence and are frequently treated with 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

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 wild-type fusions and BRAF V600E mutations
 - Tablet and pediatric-friendly liquid suspension
 - Once weekly dosing
- **Currently approved type I RAFi are indicated for use in patients with tumors bearing V600E mutations**
 - Type I RAF inhibitors cause paradoxical MAPK activation in the setting of wild-type RAF, increasing the risk of tumor growth in BRAF fusion-driven and other non-V600 mutant cancers

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.

Source: Physician Interviews, Bandopadhyay et al. *Pediatric Blood Cancer*, 2014; Sievert and Fischer. *J Child Neurol*, 2009; ClearView Analysis. GTR: Gross Total Resection 1Molecular testing of biopsied samples occurs in all patients. Kandels et al. *Retrospective analysis of comprehensive SIOP registry*; Hargrave et al. *Phase I/II*; Fangusaro et al. *Phase II*

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

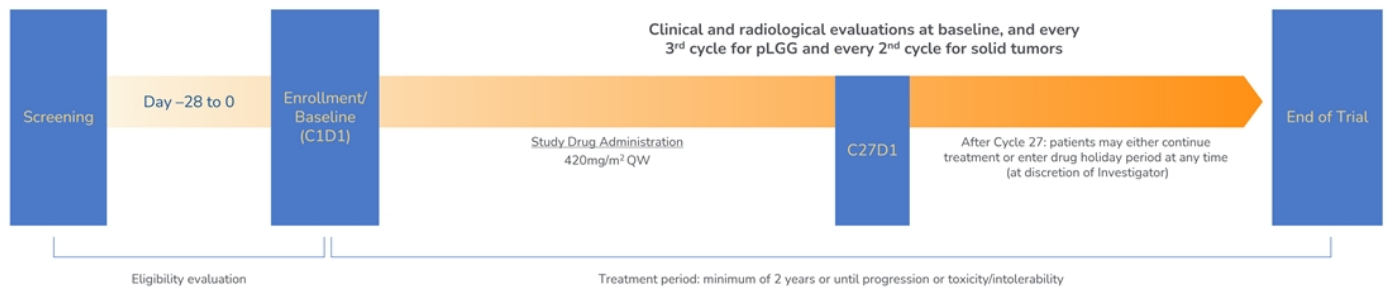


Trial Design

- Three arm, open-label, global registrational phase 2 trial
- **Pivotal Arm 1 (recurrent/progressive pLGG): n=69 RANO-evaluable patients aged 6 months to 25 years harboring a KIAA1549-BRAF fusion or BRAF V600 mutation**
- Arm 2 (expanded access recurrent/progressive LGG): patients aged 6 months to 25 years harboring an activating RAF alteration
- Arm 3 (extracranial solid tumors): patients aged 6 months to 25 years harboring an activating RAF fusion

Endpoints (Pivotal Arm 1)

- **Primary endpoint: ORR based on RANO-HGG criteria, assessed by blinded independent central review**
- Secondary endpoints: ORR by RAPNO criteria; PFS; safety

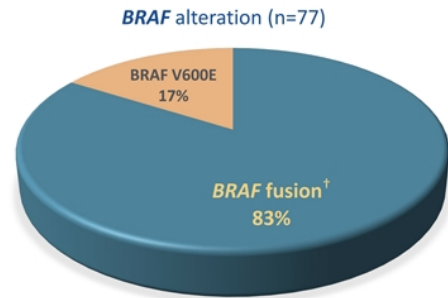
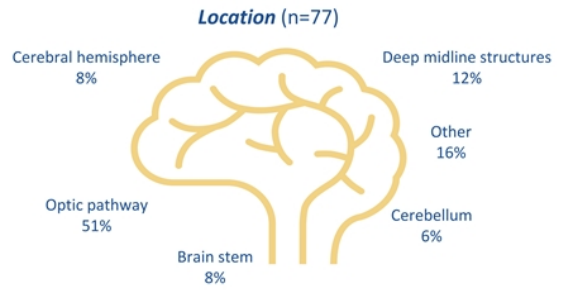


Abbreviations: C, cycle; D, day; LGG, low-grade glioma; ORR, objective response rate; PFS, progression-free survival; RANO-HGG, response assessment for neuro-oncology-high grade glioma
NCT04775485

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FIREFLY-1 Baseline Patient Characteristics

Characteristic	Topline Data Arm 1 (N=77)
Median age, years (range)	8 (2-21)
BRAF alteration, n (%)	
BRAF V600E	13 (17)
BRAF Fusion [†]	64 (83)
Median number of lines of prior therapy (range)	3 (1-9)
Prior MAPK pathway targeted therapy, n (%)	
Yes	46 (60)
No	31 (40)
Geography, n (%)	
U.S.	27 (35)
Ex-U.S.	50 (65)



Sep 28, 2022 data cutoff. [†]Includes 8 patients with BRAF duplication or BRAF rearrangement. MAPK, mitogen-activated protein kinase; prior MAPK pathway targeted therapy indicates either prior MEKi and/or prior type I RAFi therapy.

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Topline Data from Ongoing Pivotal Phase 2 FIREFLY-1 Trial

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. In the 69 RANO-evaluable patients:

- 64% ORR and 91% clinical benefit rate (complete response + partial response/unconfirmed partial response + stable disease)
 - 4% (n=3) confirmed complete responses
 - 59% (n=41) partial responses (31 confirmed and 10 unconfirmed)
 - 28% (n=19) patients with stable disease
- 86% (n=59) of patients had a BRAF fusion alteration, for which there are no approved systemic therapies, while the remaining 14% (n=10) had a BRAF mutation

Safety data, based on 77 treated patients, indicated monotherapy tovorafenib to be generally well-tolerated.

- The most common side effects reported as related to tovorafenib were change in hair color (75%), increased creatine phosphokinase (64%), anemia (46%), fatigue (42%) and maculopapular rash (42%)
- 3 patients (3.9%) discontinued treatment due to adverse events, of which 2 (2.6%) were deemed to be related to tovorafenib

Among a total of 77 treated patients:

- Participants were heavily pretreated, with a median of three prior lines of systemic therapy (range: 1-9)
- The median duration of tovorafenib treatment was 8.4 months, with 77% (n=59) of patients on treatment at the time of the data cutoff
- Nearly 60% (n=46) of patients had already received at least one prior MAPK inhibitor prior to study participation

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
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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

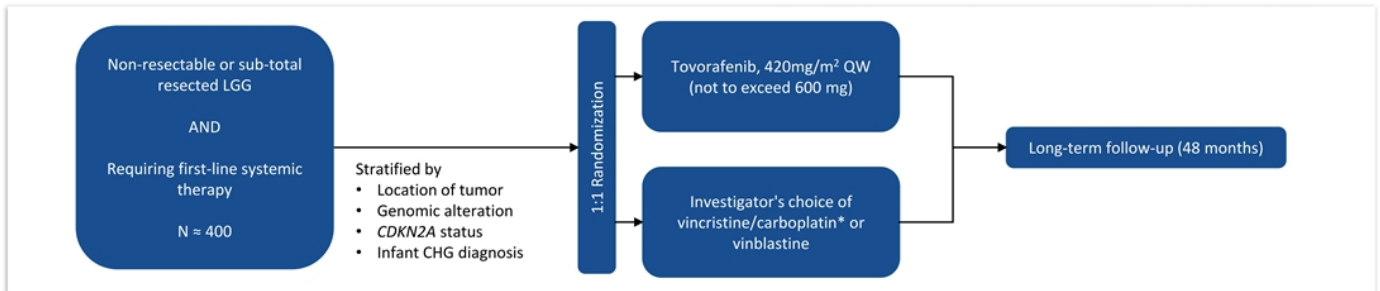


Trial Design

- 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.

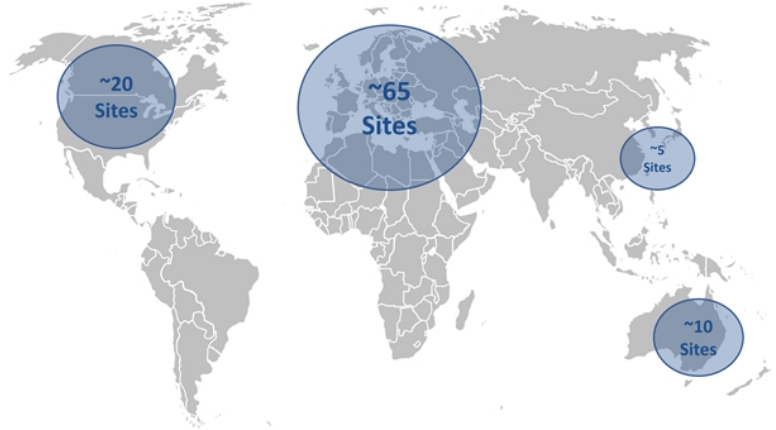
¹Primary endpoint of FIREFLY-2 will be ORR by RANO-LGG (2017) following full approval by FDA on March 16, 2023 of dabrafenib with trametinib in pediatric patients with low-grade glioma with a BRAF V600E mutation who require systemic therapy based on a study with the same primary endpoint.

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



LOGGIC
EUROPE

LOGGIC: Low Grade Glioma In Children



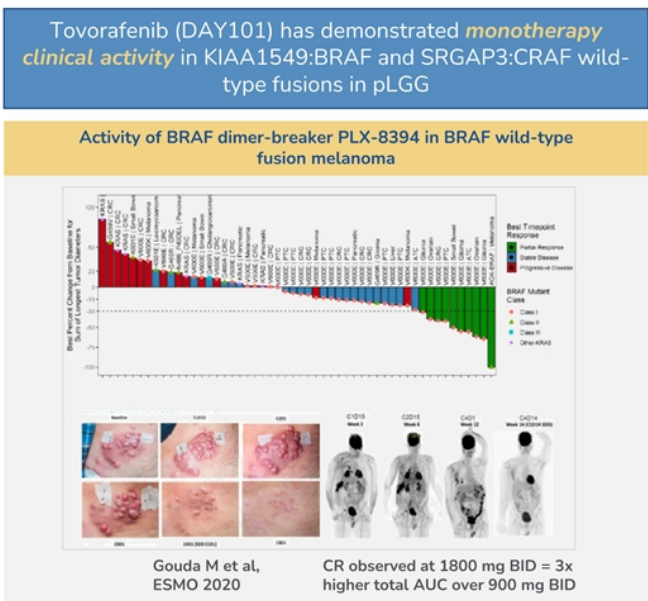
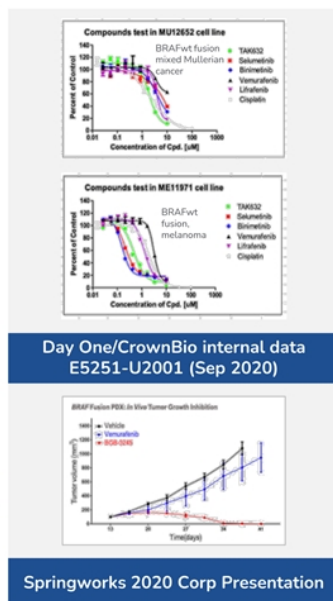
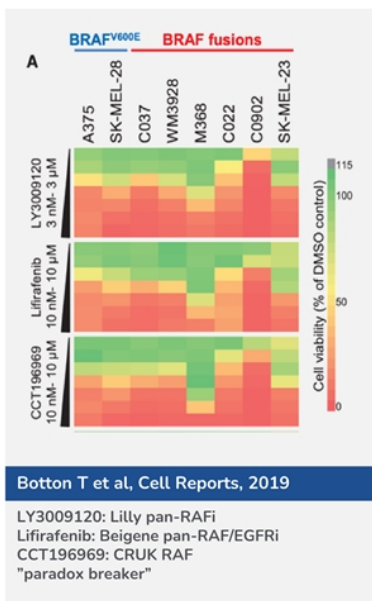
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Our Pipeline

Product Candidate	Indication	Preclinical	Phase 1	Phase 2	Phase 3	Recent & Anticipated Milestones
Tovorafenib (DAY101) Type II Pan-RAF Inhibitor ✓ 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) 				Topline data presented: January 2023 Pre-NDA meeting & NDA submission planned: Q2 2023 NDA data set presentation planned: Q2 2023
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*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.
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Next-generation RAF Inhibitors are Unique in Their Ability to Address Adult Cancers Associated with RAF Wild-type Fusions



Phase 2 Study of Monotherapy Tovorafenib (DAY101) in Solid Tumors (FIRELIGHT-1)

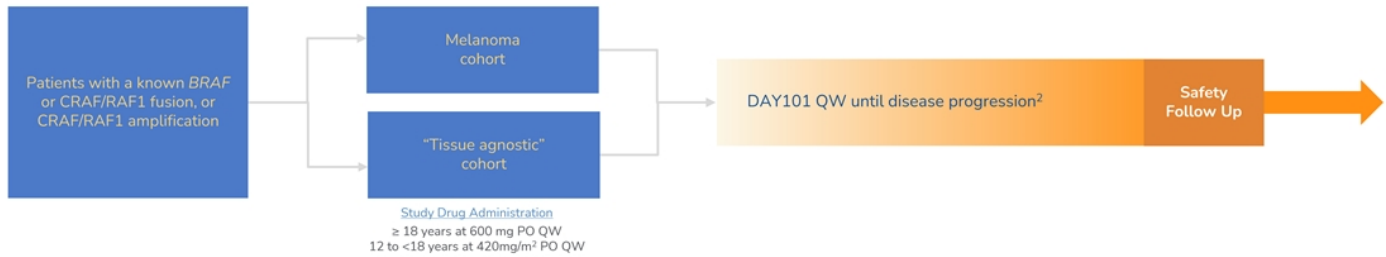


Trial Design¹

- 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 criteria for any CNS tumors
- Secondary endpoints: safety and additional efficacy parameters



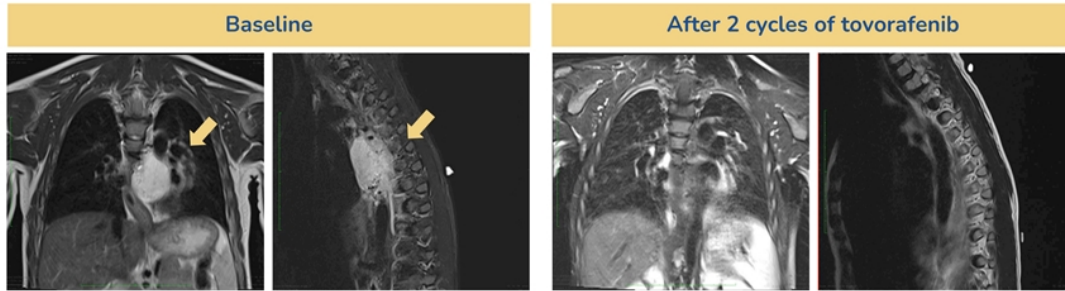
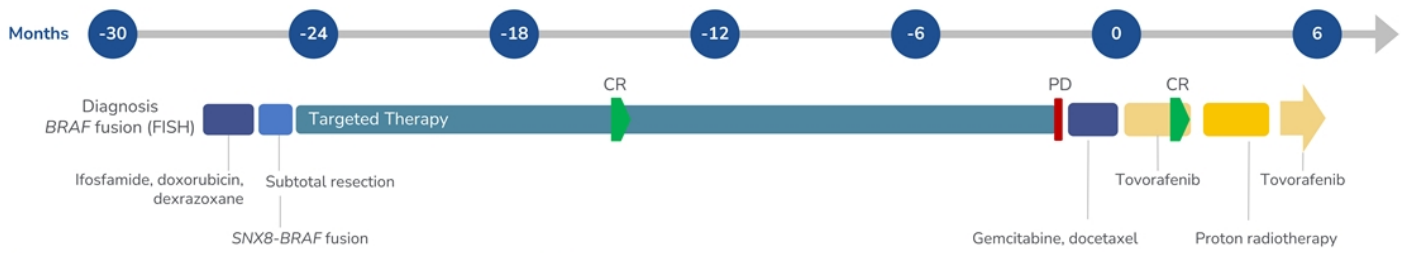
Abbreviations: ORR, objective response rate; QW, once weekly; PO, by mouth; BRAF, B-Raf proto-oncogene.

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

2. DAY101 QW until disease progression, intolerable toxicity, withdrawal of consent, or death

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

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







- 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

Data cut off: September 30, 2021

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

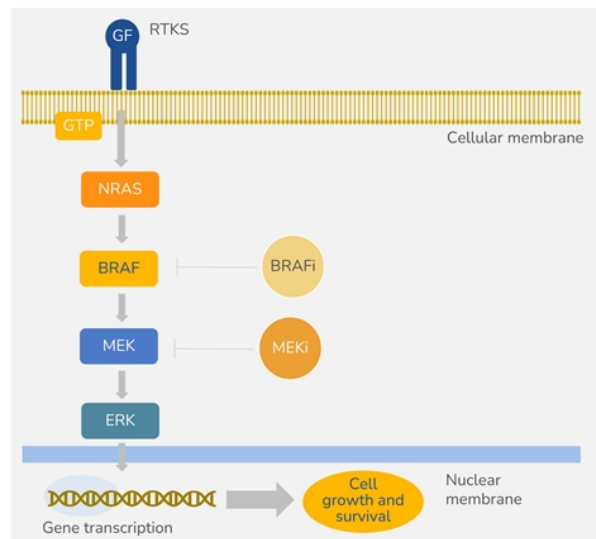
	BRAF non-V600	BRAF or CRAF WT fusion	KRAS or NRAS mutant	NF1 LOF
Signaling pathways	 <p>Proliferation, survival</p>	 <p>Proliferation, survival</p>	 <p>Proliferation, survival</p>	 <p>Proliferation, survival</p>
Potential combinations	Type II RAFi + MEKi or SHP2i	Type II RAFi + MEKi	Type II RAFi + KRAS - G12Ci or MEKi or SHP2i	Type II RAFi + SHP2i
Rationale	Non V600 BRAF dimers are effectively inhibited by type II, but not type I, RAFi	BRAF fusion dimers are effectively inhibited by type II, but not type I RAFi	Targeting multiple nodes of MAPK pathway will drive deeper and more durable response	Targeting multiple pathways will drive deeper response

Pimasertib

MEK1/2 Inhibitor

Pimasertib: Investigational Allosteric MEK1/2 Inhibitor with Demonstrated Activity in MAPK-driven Solid Tumors

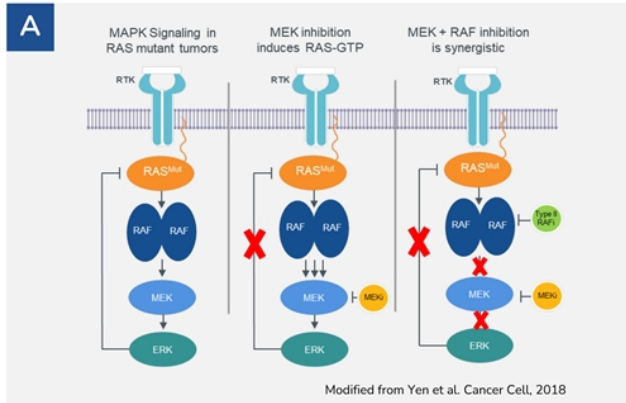
- Pimasertib is an investigational orally-bioavailable, selective, non-competitive MEK1/2 inhibitor in-licensed from Merck KGaA in February 2021
- Extensive non-clinical and clinical development work through Phase 2, including a solid tumor trial in Japan and combinations with other MOAs
- Main AEs typical 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



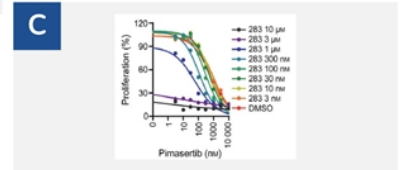
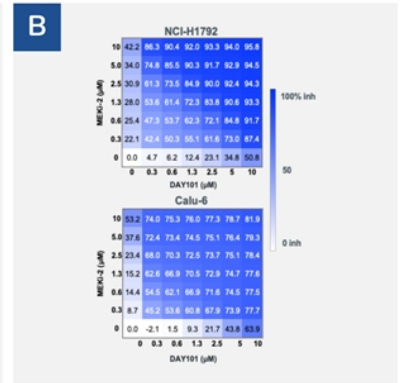
Source: Hepner, Salgues, Anjos, et al. 2017.

Vertical MAPK Pathway Inhibition with Tovorafenib (DAY101) and Pimasertib May Unlock Potential Synergy for Adult Solid Tumors

- The MAPK pathway normally has multiple feedback loops that negatively regulate upstream (RAS/RAF) activation to ensure optimal signaling
- Monotherapy MEK inhibition disables these feedback loops and induces RAS signaling as well as RAF dimerization and activation
- Combination therapy with a MEK inhibitor and type II RAF inhibitor is synergistic in KRASmut and BRAFmut tumor models



- A** Mechanistic model for vertical MAPK pathway inhibition (modified from Yen et al. Cancer Cell, 2018) .
- B** DAY101 + MEK inhibitor is synergistic in KRAS G12C and Q61 mutant tumor cell models (Day One internal data)
- C** Sensitivity of KRAS Q61 mutant cells to pimasertib is enhanced when cells are treated with the type II RAF inhibitor BGB-283 (Yuan et al., Mol Onc 2020)



Tovorafenib (DAY101) / Pimasertib Combination to be Evaluated in Solid Tumors (FIRELIGHT-1)

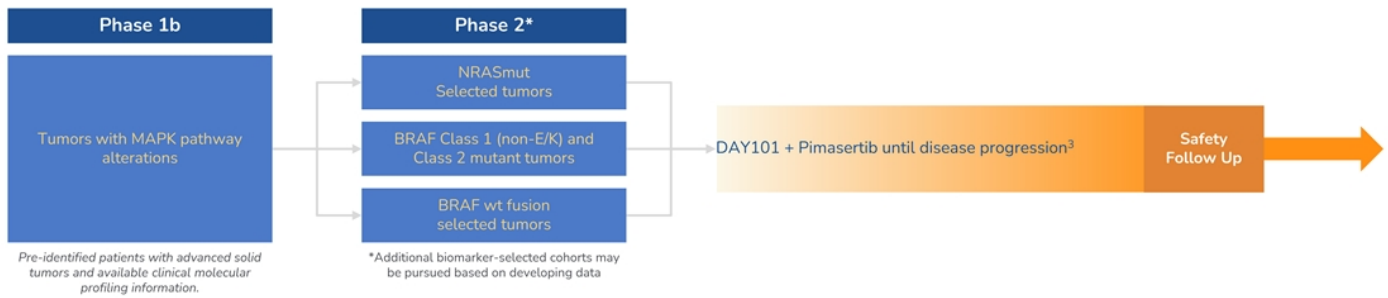


Trial Design¹

- 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.
 1. Umbrella master study – DAY101-102 (main protocol) DAY101 and MAPK pathway aberration, Sub-study 1 monotherapy (DAY101-102a), Sub-study 2 MEK combo (DAY101-102b).
 2. Intend 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 December 31, 2022: \$342.3 million (no debt)

73.6 million shares of common stock outstanding as of March 1, 2023

\$ Millions	Twelve Months Ended 12/31/22	Twelve Months Ended 12/31/21
R&D Expense	\$85.6	\$43.6
G&A Expense	\$61.3	\$29.2
Net Loss	\$142.2	\$72.8

Projected cash runway into 2025

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

- Topline results presented in January 2023
- Pre-NDA meeting and NDA submission planned in Q2 2023
- NDA data set will include additional follow up with data to be presented at a medical meeting in Q2 2023¹

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

- First patient dosed in March 2023

All financial and share information is unaudited. ¹NDA data set will include analysis of primary (ORR by RANO-HGG) and secondary (ORR by RAPNO, PFS) efficacy endpoints, safety, and exploratory analyses (including ORR by RANO-LGG). Day One Biopharmaceuticals

Next Steps



Data cut off as of September 28, 2022. Overall response rate of 64% in 69 heavily-pretreated, RANO-evaluable patients includes confirmed and unconfirmed CR and PR. Clinical benefit rate (complete response + partial response/unconfirmed partial response + stable disease). ORR by RANO-HGG

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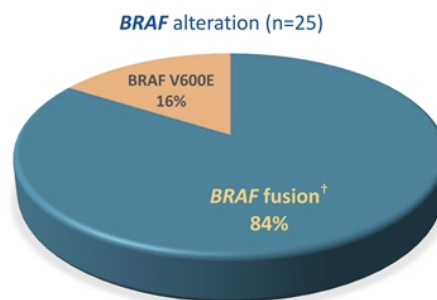
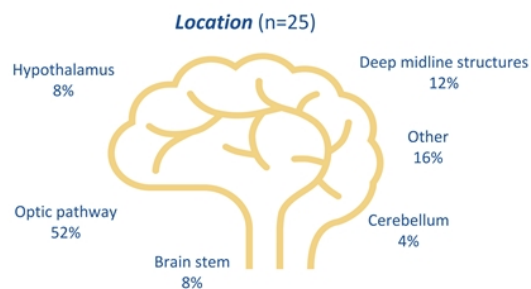
Appendix

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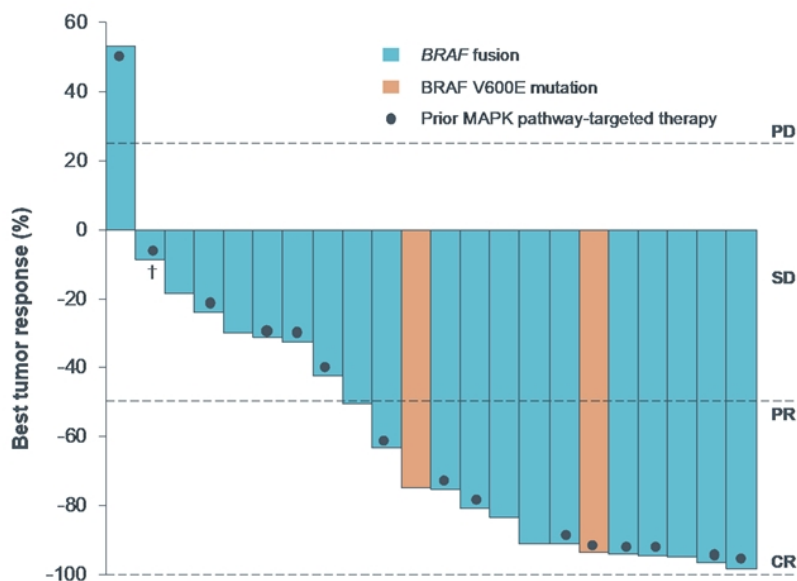
FIREFLY-1 Baseline Characteristics

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.

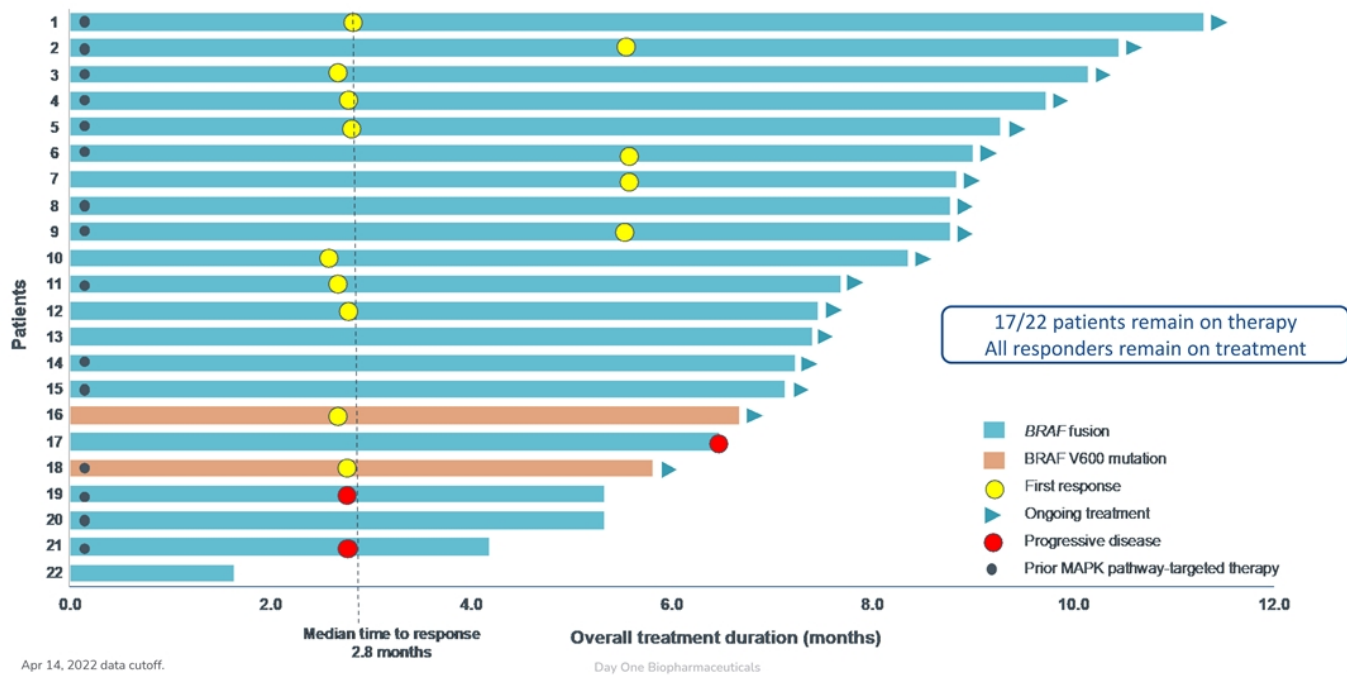
Tumor Response To Tovorafenib (DAY101) For All Patients With RANO-HGG Evaluable Lesions (n=22)*



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)

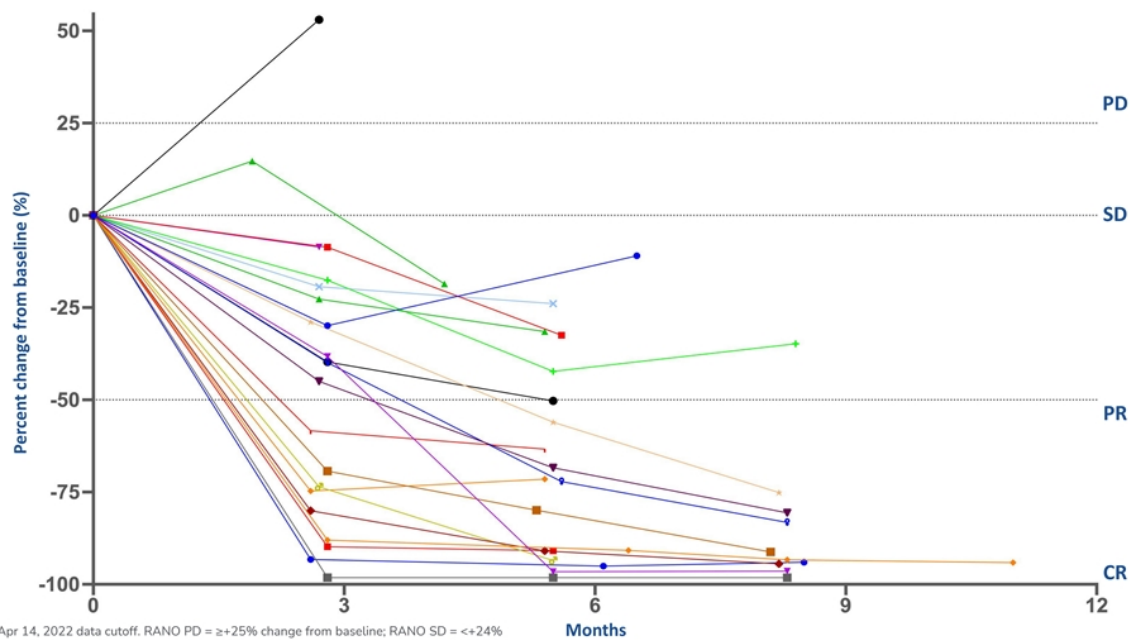


Apr 14, 2022 data cutoff.

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Individual Patient Tumor Change From Baseline

(n=22 RANO-HGG Evaluable By Blinded Independent Central Review)



Tovorafenib (DAY101) Safety Data For the First 25 Enrolled Patients (TEAEs ≥25% Any Grade)

Preferred term, n (%)	Treatment-emergent AEs		Treatment-related AEs	
	Any grade	Grade ≥3	Any grade	Grade ≥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

Apr 14, 2022 data cutoff. AE, adverse event. TEAE, treatment-emergent adverse event.
*Includes maculopapular and erythematous rash

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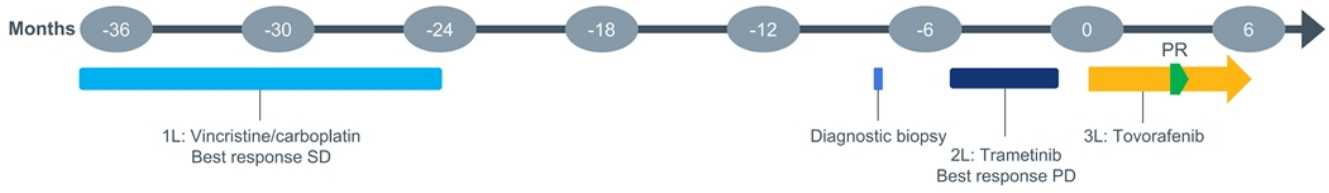
Key Takeaways

- **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

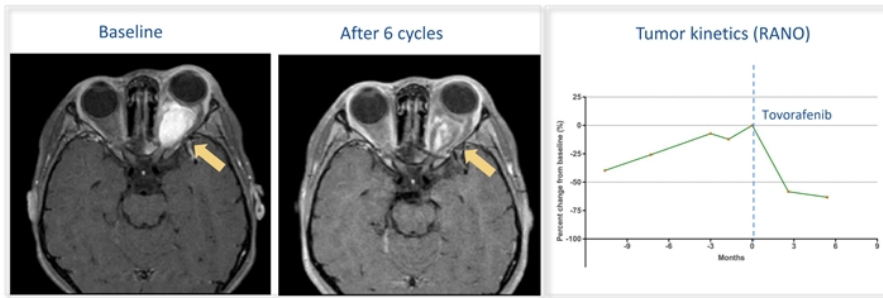
¹Primary endpoint of FIREFLY-2 will be ORR by RANO-LGG (2017) following full approval by FDA on March 16, 2023 of dabrafenib with trametinib in pediatric patients with low-grade glioma with a BRAF V600E mutation who require systemic therapy based on a study with the same primary endpoint.

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

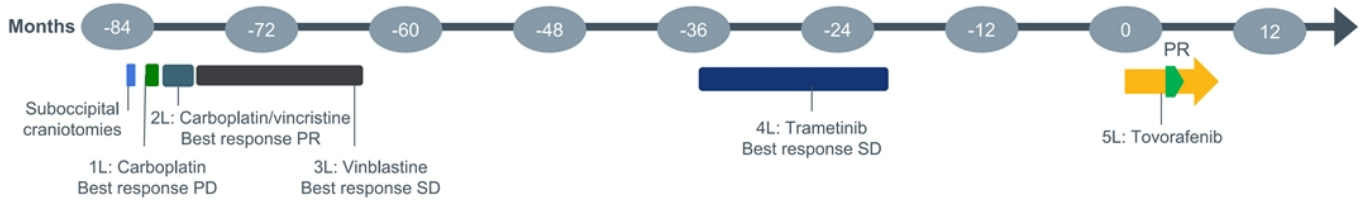


Apr 14, 2022 data cutoff. Tovorafenib is an investigational agent. Safety and efficacy have not been established by any health authority.

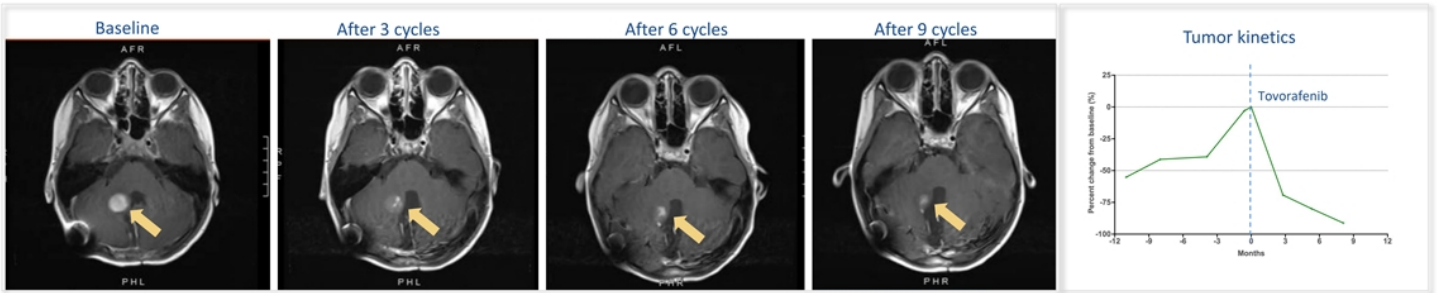
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Case Study: Activity Of Tovorafenib (DAY101) In KIAA1549-BRAF Fusion Posterior Fossa Pilocytic Astrocytoma

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



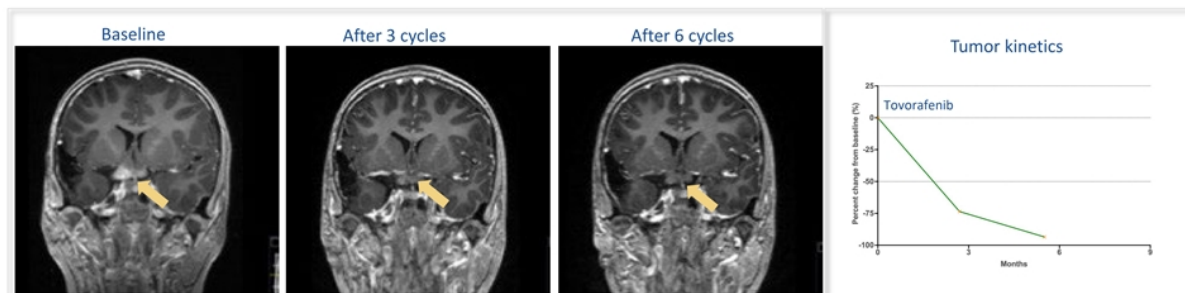
Apr 14, 2022 data cutoff. Tovorafenib is an investigational agent. Safety and efficacy have not been established by any health authority.

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

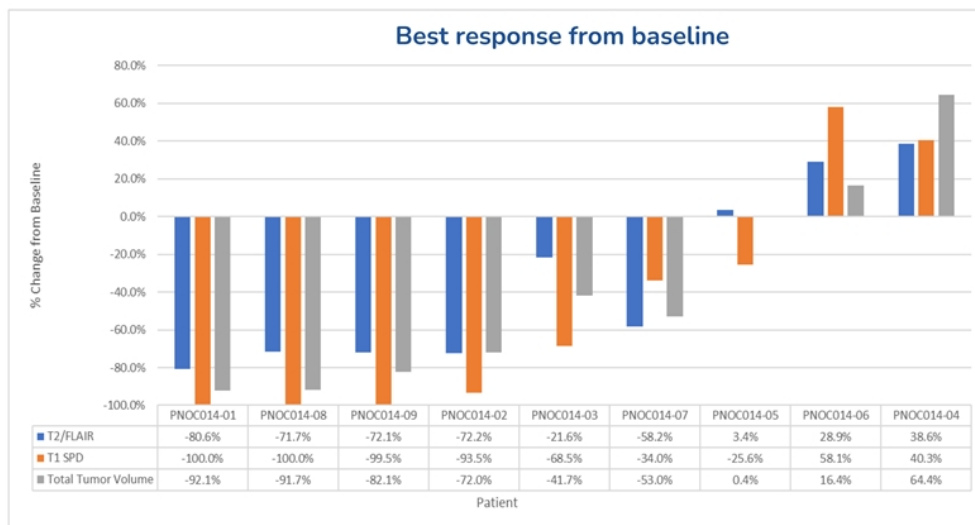


- PR (-74%) at cycle 3, with a deepening of response (-94%) at cycle 6
- AEs included grade 3 maculopapular rash and increased CPK, requiring drug interruption and dose reduction (500 mg QW to 400 mg QW in cycle 1)
- Tovorafenib dose was re-escalated back to 500 mg QW in cycle 4; patient continues on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



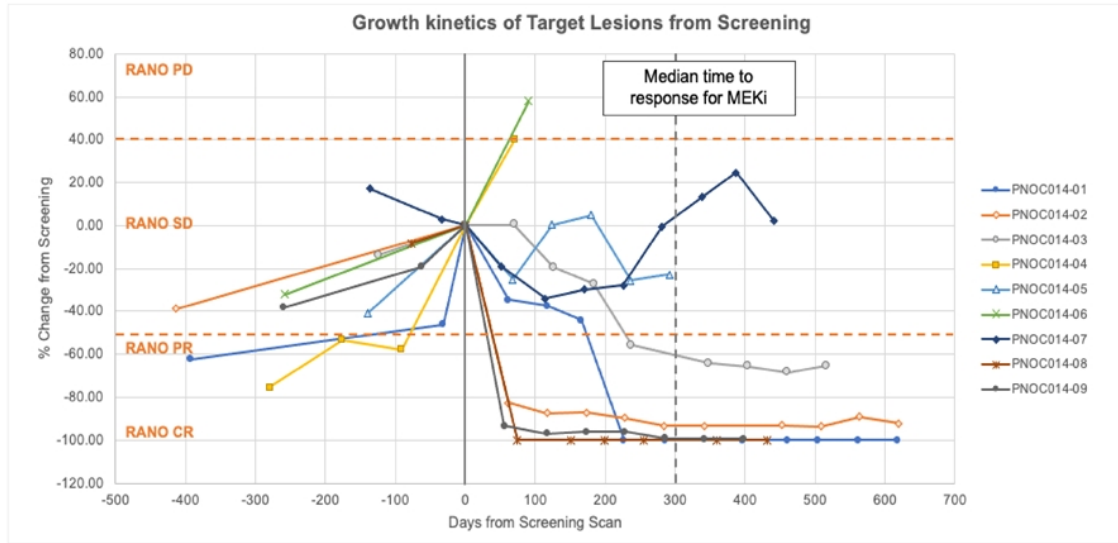
Apr 14, 2022 data cutoff. Tovorafenib is an investigational agent. Safety and efficacy have not been established by any health authority.

Results from Independent Radiology Review of PNOC014



- RANO-HGG: Response assessment for neuro-oncology (FDA standard)
- 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



Date of data cutoff: 02 JAN 2020
Adapted from Wright K et al. Neuro Oncology Abstract CTNI-19. 2020
Fangusaro J et al. Lancet Oncol 2019

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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/artralgias	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%)		