

FY2019 Q1 Financial Results Presentation

DAIICHI SANKYO CO., LTD

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Agenda

① FY2019 Q1 Financial Results

② Business Update

③ R&D Update

④ Appendix



Overview of FY2019 Q1 Results

(Bn JPY)

	FY2018 Q1 Results	FY2019 Q1 Results	YoY
Revenue	225.7	249.2	+10.4% +23.5
Cost of Sales	84.7	87.9	+3.2
SG&A Expenses	65.6	63.2	-2.5
R&D Expenses	45.5	41.2	-4.3
Operating Profit	29.9	57.0	+90.5% +27.1
Profit before Tax	29.6	57.1	+27.4
Profit attributable to owners of the Company	24.0	43.3	+81.0% +19.4

Currency Rate	USD/JPY	109.07	109.90	+0.83
	EUR/JPY	130.06	123.49	-6.57

Revenue

Increased by 23.5 Bn JPY (Increased by 25.7 Bn JPY excl. forex impact)

(Bn JPY)

FY2018 Results

225.7

Japan

(incl. Vaccines, OTC)

12.2

Daiichi Sankyo, Inc.
(US)

3.2

American Regent
(US)

7.1

Daiichi Sankyo
Europe

1.1

ASCA
(Asia, South and Central
America)

6.0

DS-8201
collaboration
upfront payment

2.5

Forex Impact*

2.2

FY2019 Results

249.2

Positive Factors Negative Factors

Positive Factors

Japan

Lixiana +6.8

Nexium +2.1

Pralia +1.6

Vimpat +1.3

Canalia +1.2

Daiichi Sankyo +3.6

Espha (GE)

Silodosin AG

Negative Factors

Daiichi Sankyo
Healthcare

(incl. impact of change
in accounting treatment)

-3.0

Daiichi Sankyo, Inc. (US)

Welchol -2.3

American Regent, Inc. (US)

GE injectables +3.1

Injectafer +2.4

Daiichi Sankyo Europe

Lixiana +4.5 Olmesartan -1.5

ASCA (Asia, South and Central America)

China +4.4

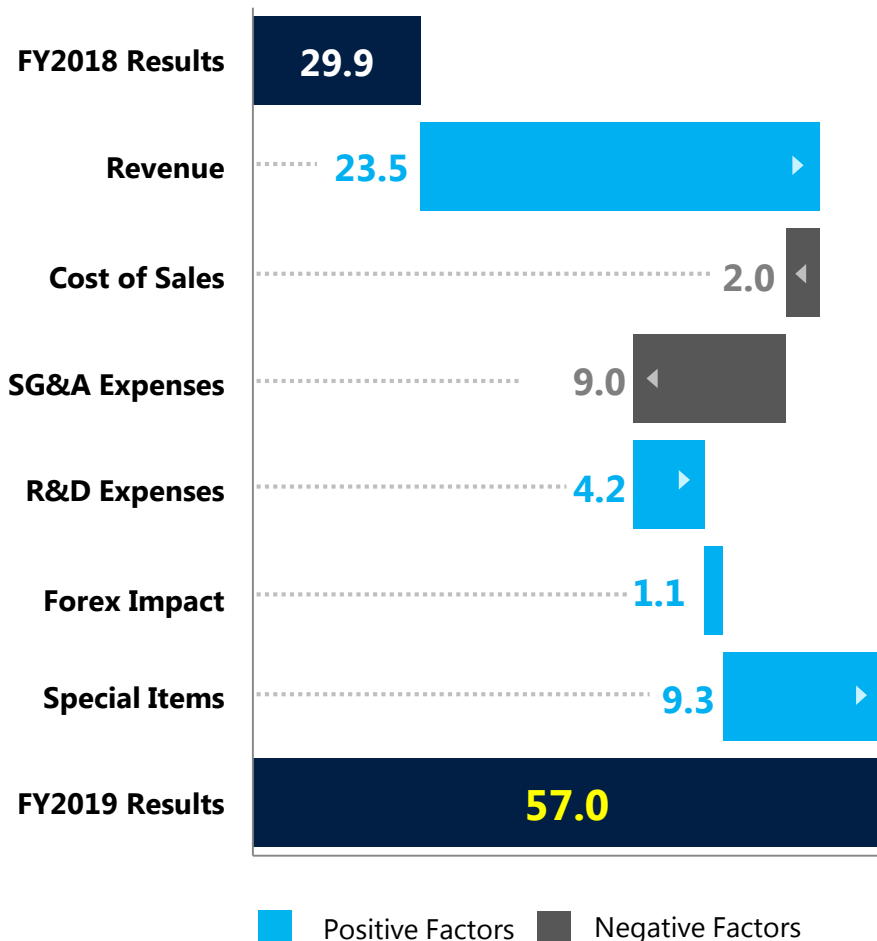
Olmetec, Cravit etc.

* Forex impact USD: +0.4, EUR : -1.2, ASCA: -1.4

Operating Profit

Increased by 27.1 Bn JPY

(Increased by 19.0 Bn JPY excl. forex impact and special items)



(Bn JPY)

Revenue **+23.5**

incl. forex impact of -2.2

Cost of Sales **+2.0 (Cost increased)**

Product mix

SG&A Expenses **+9.0 (Cost increased)**

Increase in personnel expenses in US

R&D Expenses **-4.2 (Cost decreased)**

Decrease by cost share with AstraZeneca

Forex Impact **-1.1 (Cost decreased)**

Cost of Sales **-0.2**

SG&A Expenses **-0.8**

R&D Expenses **-0.1**

Special Items **-9.3 (Cost decreased)**

See next slide for details

Special Items

(Bn JPY)

	FY2018 Q1 Results	FY2019 Q1 Results	YoY
Cost of Sales		Restructuring costs in SC 1.3	+1.3
SG&A Expenses		Gain on sales of fixed assets* -10.6	-10.6
R&D Expenses			
Total		-9.3	-9.3

*Gain on sales of Nihonbashi building

- : Cost decreased items

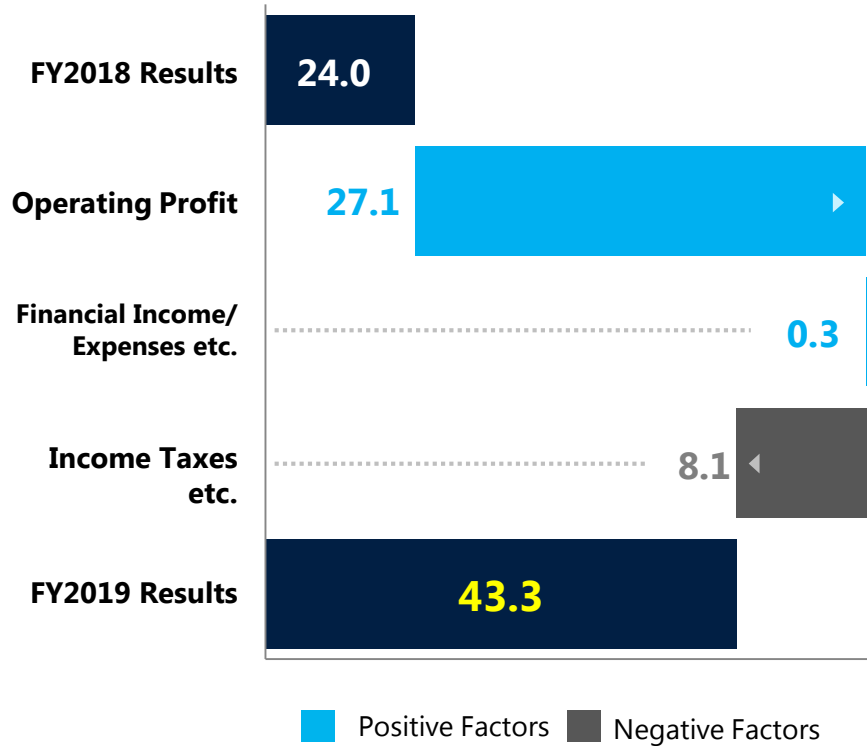
Special items :

Items having a transitory and material impact on operating profit are defined as "Special items".

Specifically, gains and losses related to: sale of fixed assets, restructuring, impairment, litigation, etc. amounting to 1 billion JPY or more are defined as "Special items".

Profit Attributable to Owners of the Company

Increased by 19.4 Bn JPY



(Bn JPY)

Income Taxes etc. +8.1 (Cost increased)

	FY2018	FY2019	YoY
Profit before Tax	29.6	57.1	+27.4
Income Taxes etc.	5.7	13.7	+8.1
Tax rate	19.2%	24.1%	+4.9%

Revenue: Major Business Units (incl. Forex Impact)

(Bn JPY)

	FY2018 Q1 Results	FY2019 Q1 Results	YoY
Japan	123.9	139.0	+15.0
Daiichi Sankyo Healthcare	18.4	15.4	-3.0
Daiichi Sankyo, Inc.	11.0	7.8	-3.1
Olmesartan	3.2	3.1	-0.1
Welchol	4.9	2.6	-2.3
American Regent, Inc.	28.6	36.0	+7.3
Injectafer	11.2	13.7	+2.5
Venofer	8.2	9.3	+1.1
GE injectables	7.9	11.1	+3.1
Daiichi Sankyo Europe	22.2	22.1	-0.1
Lixiana	9.7	13.5	+3.8
Olmesartan	8.2	6.4	-1.8
Efient	1.9	0.8	-1.1
ASCA (Asia, South and Central America)	19.7	24.3	+4.6

Currency	USD/JPY	109.07	109.90	+0.83
Rate	EUR/JPY	130.06	123.49	-6.57

Revenue: Major Products in Japan

(Bn JPY)

		FY2018 Q1 Results	FY2019 Q1 Results	YoY
Lixiana	anticoagulant	14.7	21.6	+6.8
Nexium	ulcer treatment	19.8	21.9	+2.1
Memary	Alzheimer's disease treatment	12.9	13.7	+0.8
Pralia	treatment for osteoporosis/ inhibitor of the progression of bone erosion associated with rheumatoid arthritis	6.6	8.2	+1.6
Tenelia	type 2 diabetes mellitus treatment	6.4	6.9	+0.5
Loxonin	anti-inflammatory analgesic	7.9	7.8	-0.1
Inavir	anti-influenza agent	0.1	0.0	-0.0
Ranmark	treatment for bone complications caused by bone metastases from tumors	3.9	4.7	+0.7
Efient	antiplatelet agent	3.6	3.8	+0.2
Rezaltas	antihypertensive agent	4.1	4.2	+0.1
Canalia	type 2 diabetes mellitus treatment	2.0	3.2	+1.2
Vimpat	anti-epileptic agent	1.4	2.7	+1.3
Omnipaque	contrast agent	3.3	3.0	-0.2
Olmetec	antihypertensive agent	4.2	3.5	-0.6

① FY2019 Q1 Financial Results

② **Business Update**

③ R&D Update

④ Appendix



Japan Business: Continuous Launch of Own Products

Tarlige (for pain treatment) Launched in Apr. 2019



Minnebrol (for hypertension) Launched in May 2019



Vanflyta (for the treatment of relapsed/refractory FLT3-ITD AML) Approved in Jun. 2019



Inavir nebulizer* formulation (anti-influenza agent) Approved in Jun. 2019

*device which makes mist from drug solution in order to absorb through mouth or nose



◆ Optimization of business portfolio

- Transferred to GE Healthcare
- The diagnostic imaging agents to be transferred

Product name	Product description	Launched	Revenue in FY2018
Omnipaque	Nonionic X-ray contrast agent	1987	13.6 Bn JPY
Omniscan	Linear, nonionic magnetic resonance imaging contrast agent	1996	
Visipaque	Nonionic, iso-osmolar X-ray contrast agent	2000	
Sonazoid	Ultrasound contrast agent	2007	

- Expected Timeline
 - ✓ The transfer of marketing authorization rights and commercialization to be completed in March 2020
 - ✓ Distribution will be transferred in March 2022

① FY2019 Q1 Financial Results

② Business Update

③ **R&D Update**

④ Appendix



DS-8201 data published in *The Lancet Oncology*

Interim data from U3-1402 NSCLC phase 1 study

Interim data from DS-1062 NSCLC phase 1 study


Interim data from DS-1001 glioma phase 1 study

Updated data from pexidartinib TGCT phase 3 study


Upcoming milestones

Announcement of R&D Day

DS-8201: P1 Study *The Lancet Oncology*

 Breast	Pertuzumab + trastuzumab + docetaxel (1L) ¹	T-DM1 (1L, failed study) ²	T-DM1 (2L) ³	T-DM1 (3L+) ⁴	DS-8201 ⁵
mPFS	18.5m	14.1m	9.6m	6.2m	22.1m
DoR	20.2m	20.7m	12.6m	9.7m	20.7m
OS	56.5m	53.7m	30.9m	22.7m	NR
ORR	80%	60%	43.6%	31%	59.5%
Median prior Rx for adv. disease	0	0	1	4	7 100% prior T-DM1 88% prior pertuzumab

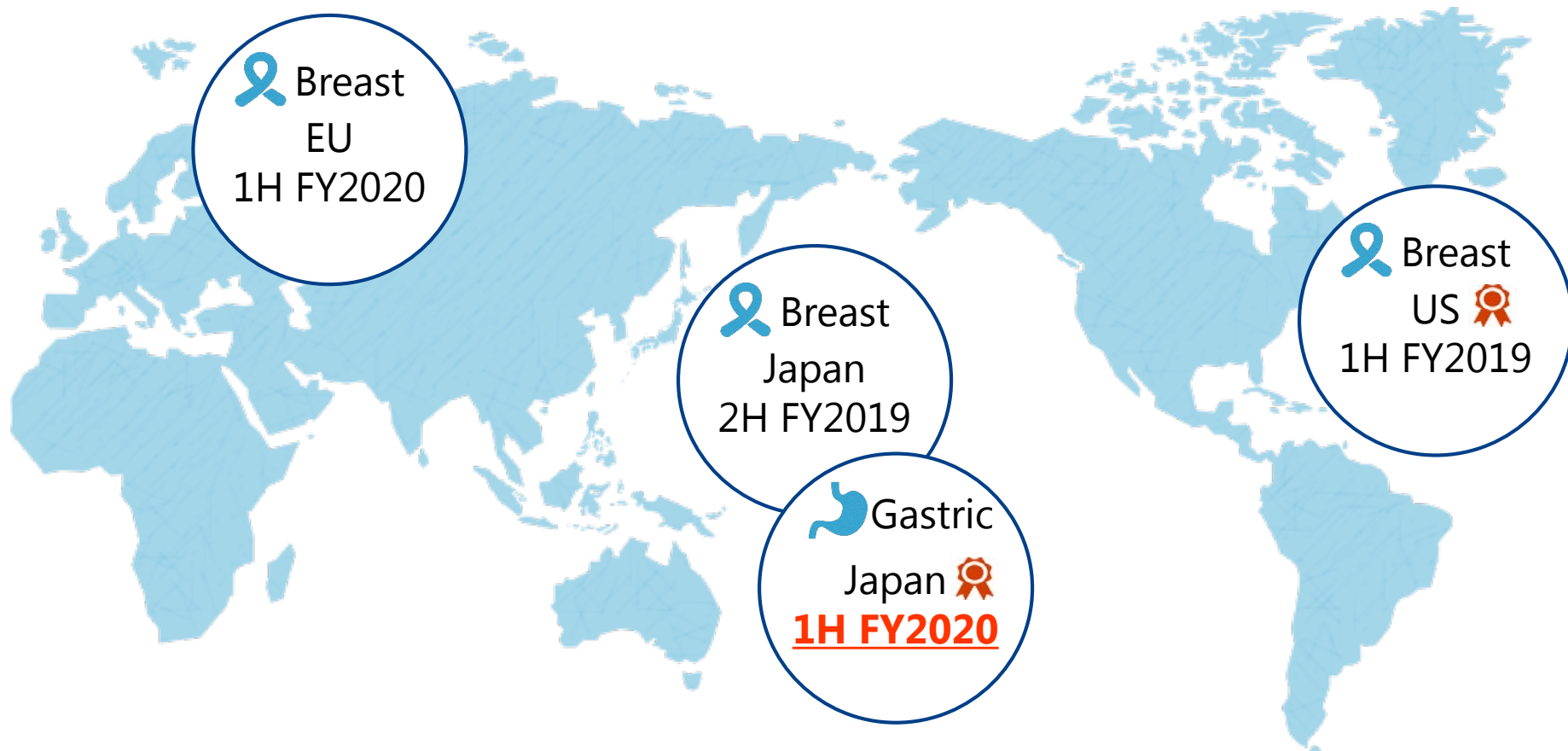
¹) CLEOPATRA (NEJM 2012), ²) MARIANNE (J Clin Oncol 2017), ³) EMILIA (NEJM 2012), ⁴) TH3RESA (*The Lancet Oncol* 2017) ⁵ *The Lancet Oncology*, 29 April 2019, m: Months, NR:Not Reached

 Gastric	Trastuzumab + Chemo (1L) ¹	Ramucirumab + Chemo (2L) ²	T-DM1 (failed study; 2+L) ³	DS-8201 ⁴
mPFS	6.7m	4.4m	2.7m	5.6m
DoR	6.9m	4.4m	4.3m	7.0m
OS	13.8m	9.6m	7.9m	12.8m
ORR	47%	28%	21%	43.2%
Median prior LoT	0	1	1	3

¹ToGA (*The Lancet* 2010), ²RAINBOW (*The Lancet Oncol.* 2014), ³GATSBY (*The Lancet Oncol.* 2017), ⁴*The Lancet Oncology*, published April 29, 2019, LoT: Line of Therapy, m: Month

- ◆ **Favorable efficacy confirmed**
- ◆ **Safety profile in *The Lancet Oncology* was consistent with past P1 reports**

◆ Preparation for submissions is on track



U3-1402: P1 Dose Escalation/Expansion Study

Eligibility

Metastatic/unresectable EGFR-mutant NSCLC and:

- T790M-negative after progression on erlotinib, gefitinib, or afatinib; **OR**
- Progressed on osimertinib

Stable brain metastases allowed

Pretreatment tumor tissue (after progression on TKI) required for retrospective analysis of HER3 expression

Dose Escalation^a

Received ≥ 1 dose of U3-1402 IV Q3W: N = 23

6.4 mg/kg, n = 5

5.6 mg/kg, n = 6

4.8 mg/kg, n = 8

3.2 mg/kg, n = 4

Ongoing
n = 16

Discontinued^b
n = 7

Dose Expansion

Will enroll additional patients at the recommended dose for expansion

Study Objectives

Primary:
Safety and tolerability of U3-1402

Secondary:
Antitumor activity of U3-1402

Exploratory:
Biomarkers of U3-1402 antitumor activity

Data cutoff of February 25, 2019. ^aDose escalation was guided by the modified continuous reassessment method with escalation with overdose control. Additional doses may be added. ^bReasons for discontinuation included progressive disease per RECIST v1.1, n = 5; clinical progression (definitive clinical signs of disease progression, but did not meet RECIST criteria), n = 1; and adverse event, n = 1. [clinicaltrials.gov NCT03260491](https://clinicaltrials.gov/NCT03260491).

◆ **Enrolling all-comer EGFRm NSCLC patients without prior HER3 selection**

U3-1402: P1 Study Patients Baseline Characteristics

Baseline clinical characteristics		Dose escalation (N = 23) ^a
Age , median (range), years		63.0 (51.0—80.0)
Sex , n (%)	Female	14 (60.9)
	Male	9 (39.1)
Race , n (%)	White	13 (56.5)
	Asian	7 (30.4)
	Black or African American	1 (4.3)
	Other	2 (8.7)
ECOG performance status , n (%)	0	9 (39.1)
	1	14 (60.9)
Prior therapies , n (%)	Any EGFR TKI	23 (100.0)
	Osimertinib^b	21 (91.3)
	Chemotherapy	10 (43.5)

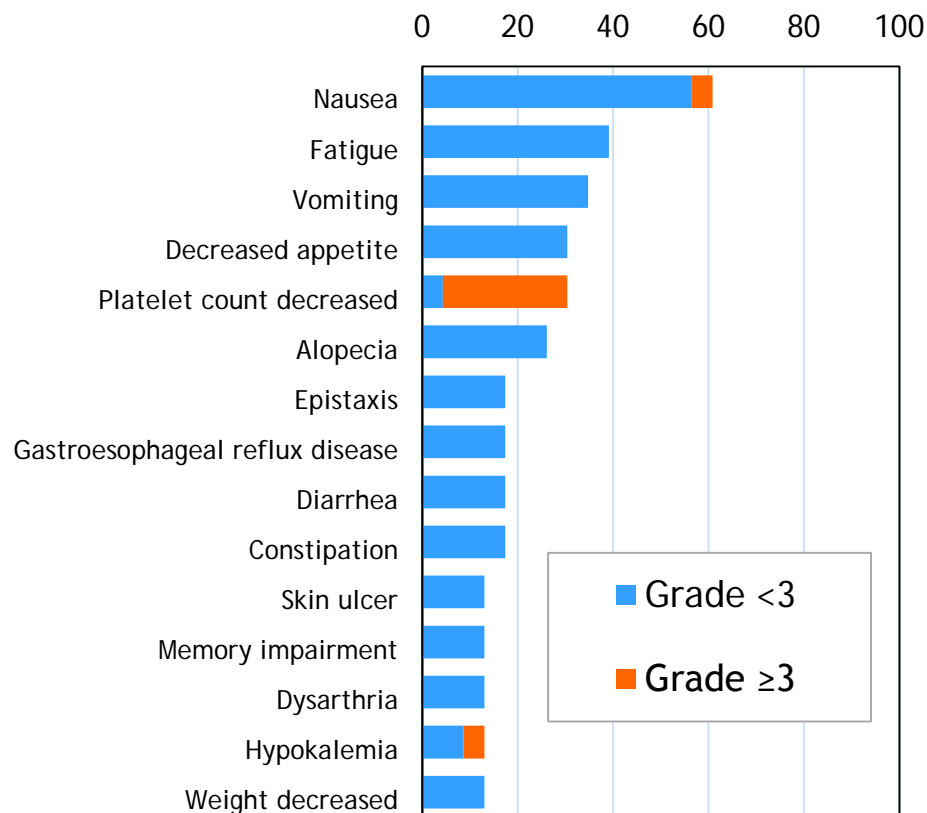
Baseline disease characteristics		Dose escalation (N = 23) ^a
Sites of metastases , n (%)	CNS ^c	14 (60.9)
	Liver	9 (39.1)
	Lung	4 (17.4)
Tumor stage , n (%)	IV	23 (100.0)
Sum of diameters of target lesions , median (range), mm		69 (20—143)
Baseline molecular characteristics		Dose escalation (N = 23) ^a
HER3 expression^d		
Evaluable patients^e	n/n (%)	19/19 (100.0)
Membrane H-score^f	median (range)	193 (150—290)
<i>composite score of 0—300</i>		
EGFR mutation^g , n (%)	Ex19del	13 (56.5)
	L858R	9 (39.1)
	L861Q	1 (4.3)

Data cutoff date of February 25, 2019. ^aSafety analysis set included all patients who received ≥1 dose of U3-1402. ^bAdditional subject with prior osimertinib reported after snapshot date, not shown. ^cIncludes brain and spinal metastases as reported by investigators. ^dBased on central analysis of tumor tissue collected prior to first dose of U3-1402. ^eIncludes patients with tumor samples that have completed retrospective analysis. ^fMembrane H-score is a composite of percentage of positively staining cells and intensity of individual cell staining. For patients with multiple H-scores, the highest number was used. ^gAs reported locally by the investigator.

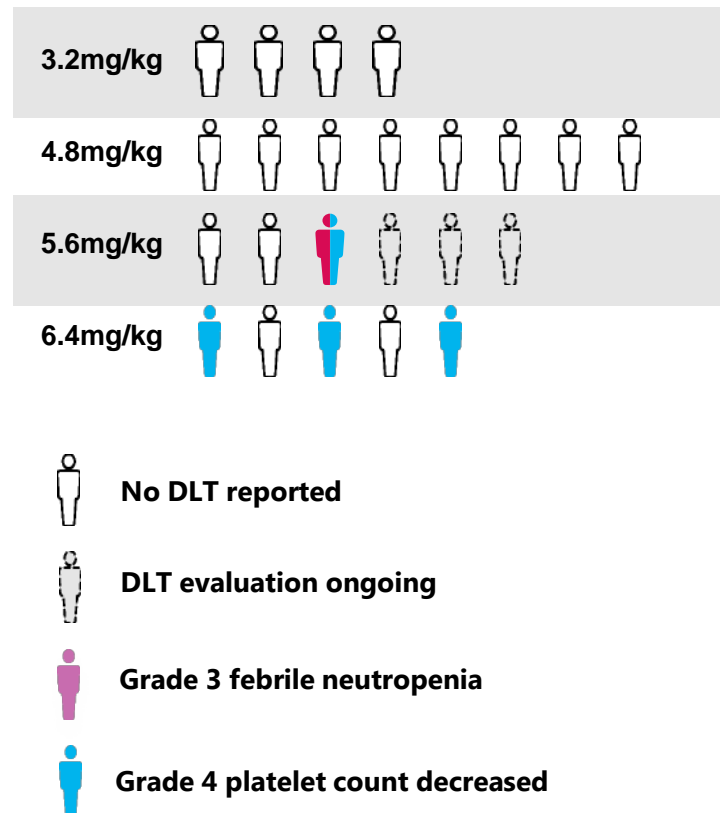
◆ **91.3% patients received prior osimertinib**

U3-1402: P1 Study Safety TEAEs and DLT

Percentage of patient with TEAEs ($\geq 10\%$; N = 23)



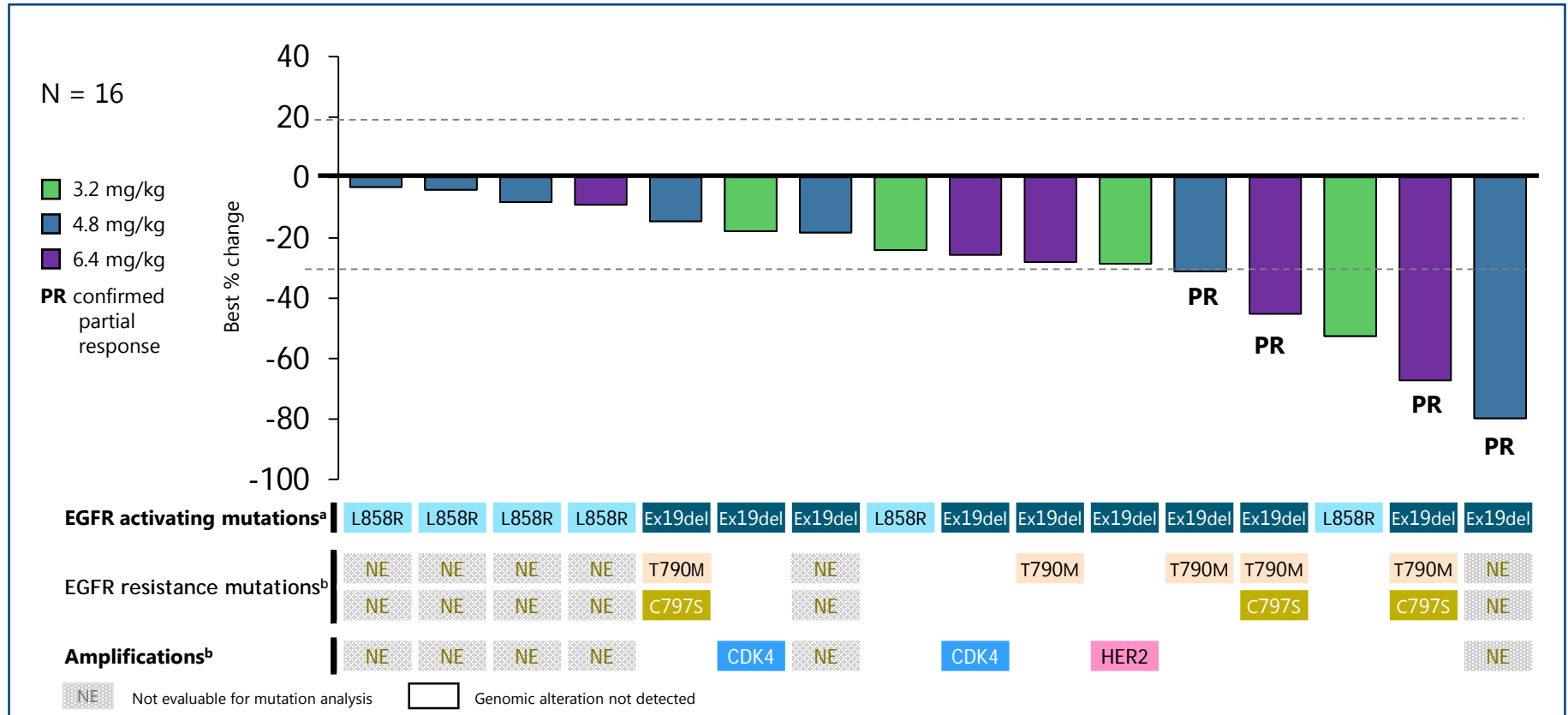
Dose-limiting Toxicities(DLT) (N = 23)



Data cutoff date of February 25, 2019. TEAE analysis used the safety analysis set, which includes all patients who received ≥ 1 dose of U3-1402 (N = 23). For TEAEs in $<10\%$ of patients, there were five Grade 3 events: ALT increased n = 1; troponin increased n = 1; confusional state n = 1; hypoxia n = 1; febrile neutropenia n = 1. DLT, dose-limiting toxicity; TEAE, treatment emergent adverse event

◆ **U3-1402 was generally well-tolerated to date**

U3-1402: P1 Study Efficacy Waterfall Chart

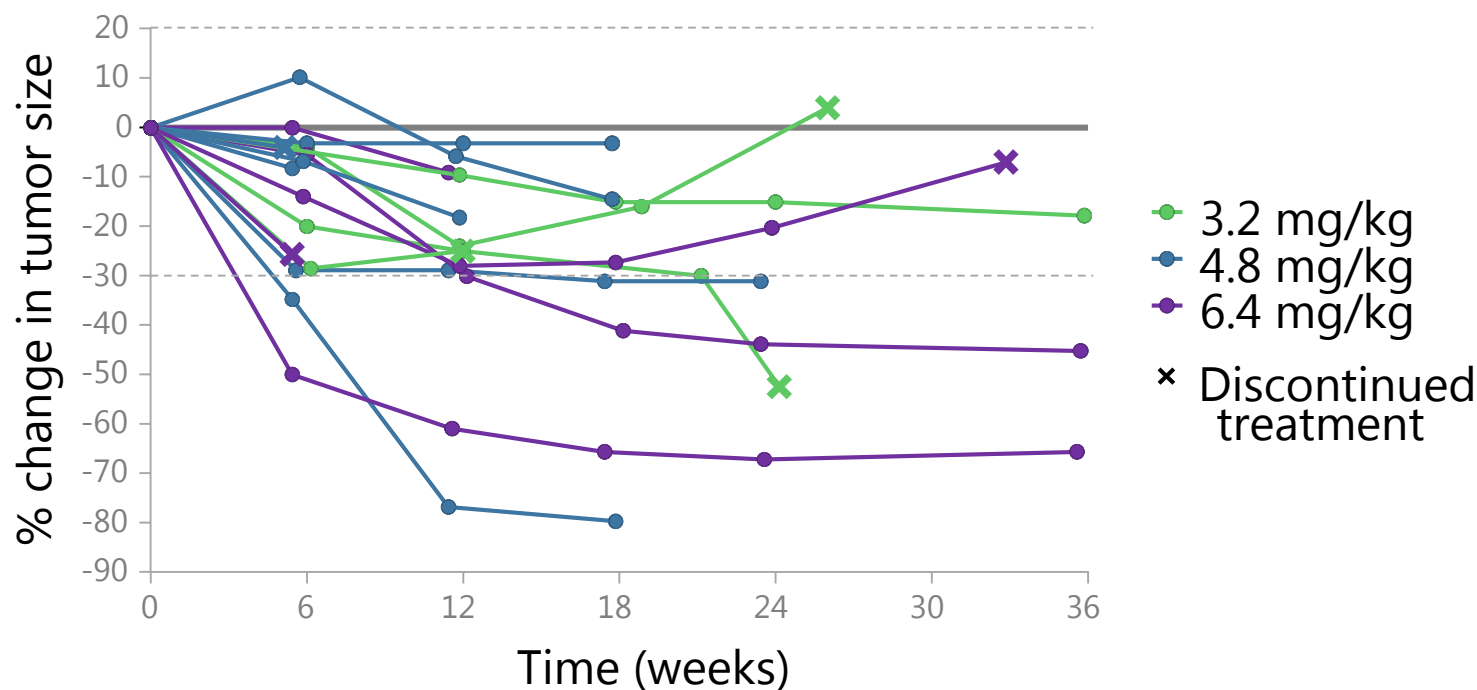


Data cutoff date of February 25, 2019. Dotted lines denote 20% increase and 30% decrease in tumor size. Sixteen patients received ≥ 1 dose of U3-1402 and had pre- and post-treatment evaluable tumor assessments.

^aLocal testing as reported by the investigator. ^bPerformed centrally using Oncomine Comprehensive assay v3 from formalin-fixed, paraffin-embedded tumor tissue.

◆ Antitumor activity across diverse EGFR-TKI resistance mechanisms

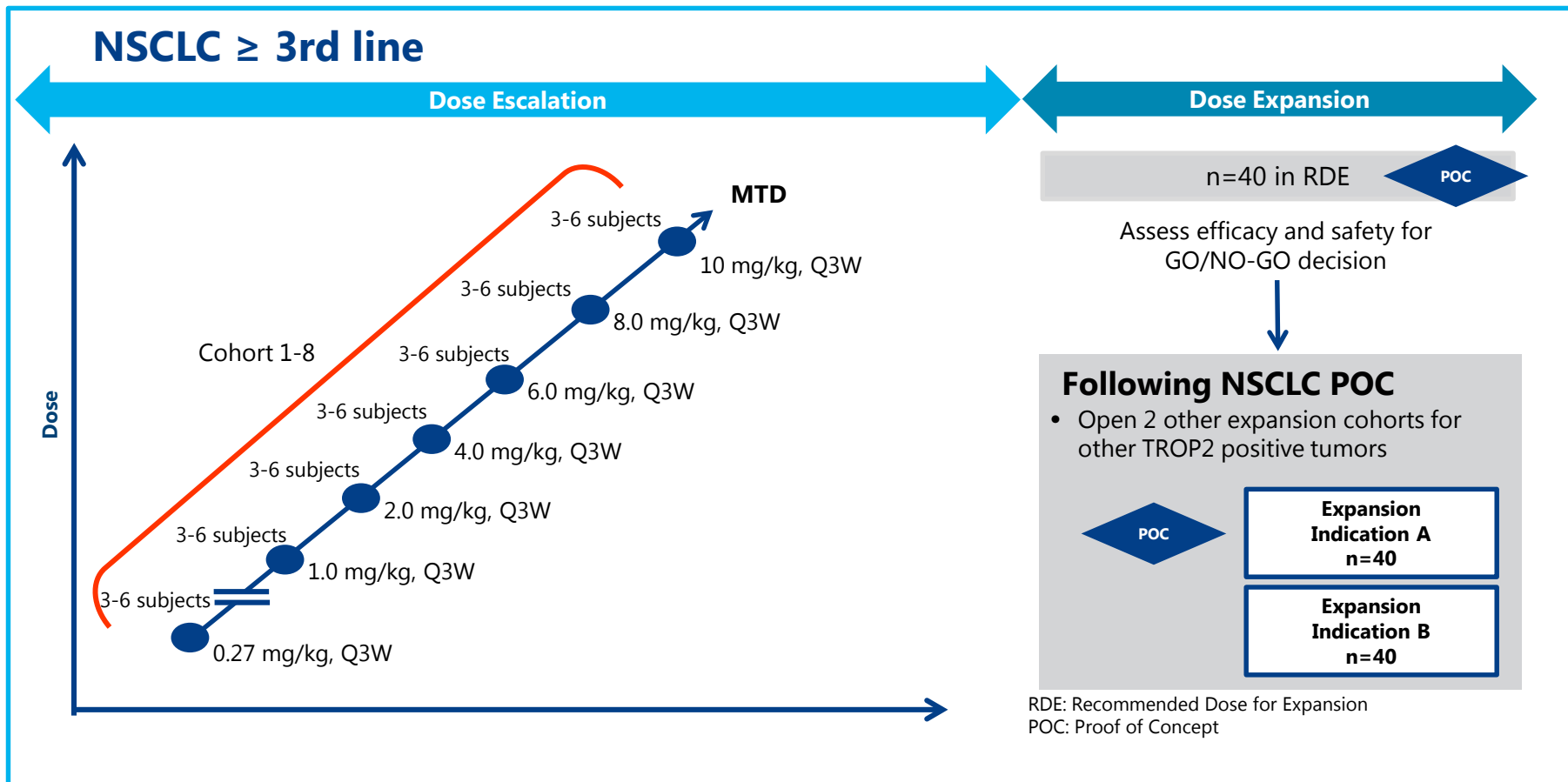
U3-1402: P1 Study Efficacy Spider Plot



Data cutoff date of February 25, 2019. Sixteen patients received ≥ 1 dose of U3-1402 and had pre- and post-treatment evaluable tumor assessments. Dotted lines denote 20% increase and 30% decrease from baseline in tumor size over time.

◆ **More than 50% of patients continue on study treatment**

DS-1062: Relapsed NSCLC P1 Study



- ◆ Currently enrolling all-comer NSCLC patients without prior TROP2 selection
- ◆ **Dose expansion cohort started** in July 2019

DS-1062: P1 Study Patients Baseline Characteristics

Parameter	DS-1062 doses, mg/kg							Total (N=39)
	0.27(n=4)	0.5(n=5)	1.0(n=7)	2.0(n=6)	4.0(n=6)	6.0(n=8)	8.0(n=3)	
Male sex, n (%)	1 (25.0)	3 (60.0)	4 (57.1)	4 (66.7)	2 (33.3)	6 (75.0)	3 (100)	23 (59.0)
Age, y, median (range)	64.0	66.0	67.0	60.5	53.5	53.5	69.0	60.0
Country, n (%)								
United States	2	4	5	4	5	5	1	26 (66.7)
Japan	2	1	2	2	1	3	2	13 (33.3)
Stage at study entry, n (%)								
IIIA	0	0	0	1	0	0	1	2 (5.1)
IVA	1	1	0	0	3	4	0	9 (23.1)
IVB	0	3	5	2	2	0	1	13 (33.3)
Other ^a	3	1	2	3	1	4	1	15 (38.5)
Histology, n (%)								
Adenocarcinoma	4	3	6	4	3	6	3	29 (74.4)
Large cell	0	0	0	0	1	0	0	1 (2.6)
Other (poorly differentiated NSCLC, NOS)	0	1	0	0	0	0	0	1 (2.6)
Squamous	0	1	1	2	2	2	0	8 (20.5)
ECOG PS, n (%)								
0	0	1	2	0	2	2	1	8 (20.5)
1	4	4	5	6	4	6	2	31(79.5)

a: Stage IV

- ◆ **Background characteristics were balanced**
- ◆ **Approximately 90% failed prior immune-checkpoint inhibitors**

DS-1062: P1 Study Safety Summary

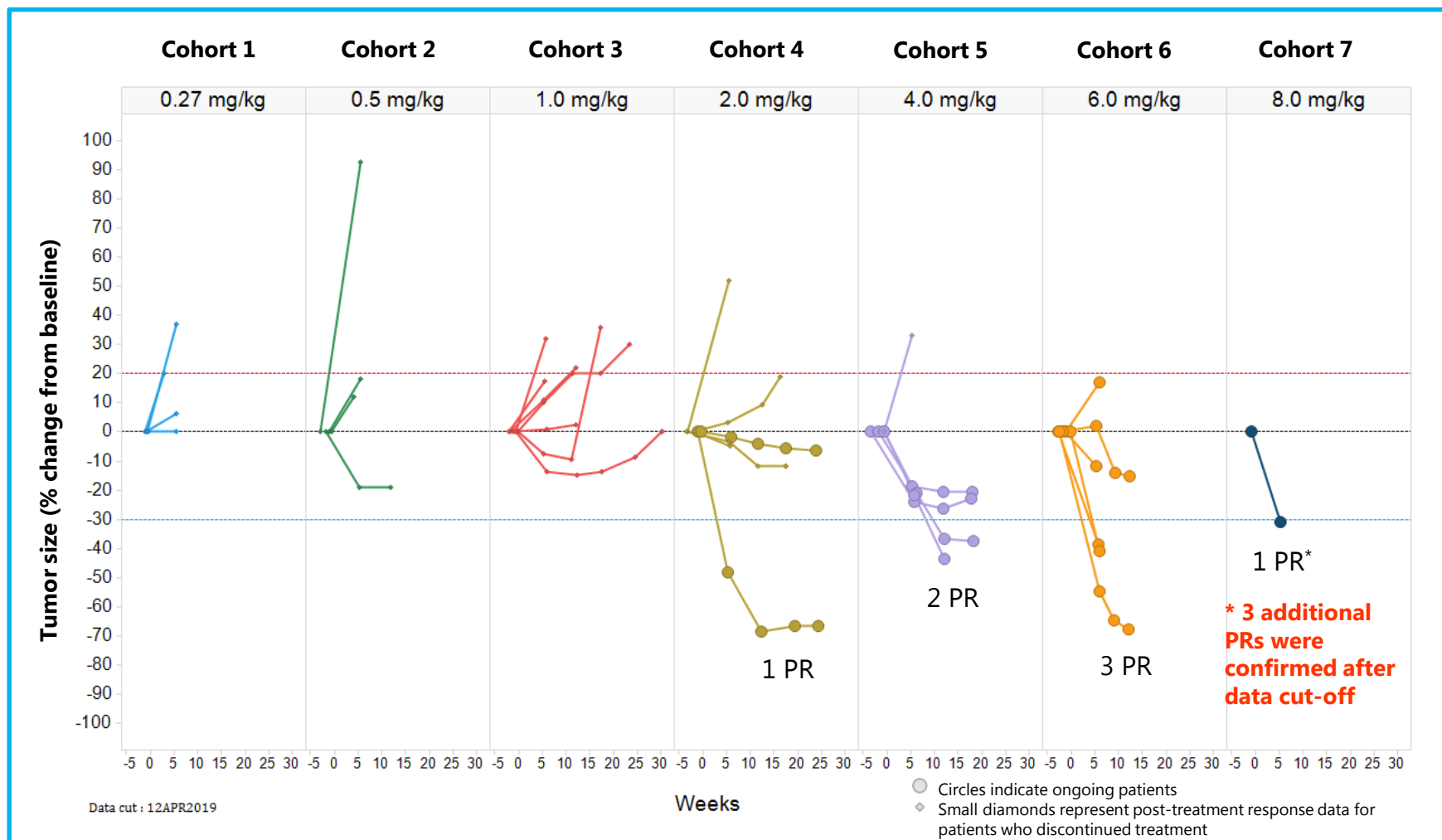
TEAE, n (%)	N = 39	
	All grades	Grade $\geq 3^{a,b}$
Any TEAE	34 (87.2)	16 (41.0)
TEAE, preferred term (in $\geq 10\%$ of patients)		
Fatigue	13 (33.3)	2 (5.1)
Nausea	12 (30.8)	0
Anemia	9 (23.1)	0
Decreased appetite	9 (23.1)	0
Alopecia	8 (20.5)	0
Infusion related reaction	8 (20.5)	0
Constipation	6 (15.4)	0
Vomiting	6 (15.4)	0
Cough	5 (12.8)	0
Dyspnea	5 (12.8)	1 (2.6)
Rash	5 (12.8)	0
Diarrhea	4 (10.3)	0
Pain	4 (10.3)	1 (2.6)
Weight decreased	4 (10.3)	0

^aTEAEs include 'uncoded' (all grades: n=5, 12.8%; grade ≥ 3 , n=1, 2.6%); ^bThe majority of TEAEs were grade 3 (n=8; 20.5%), except for one grade 2 and 1 grade 5 TEAE (grade 5 sepsis; 6.0 mg/kg treatment group).

TEAE, treatment-emergent adverse event.

◆ **DS-1062 was generally well-tolerated to date**

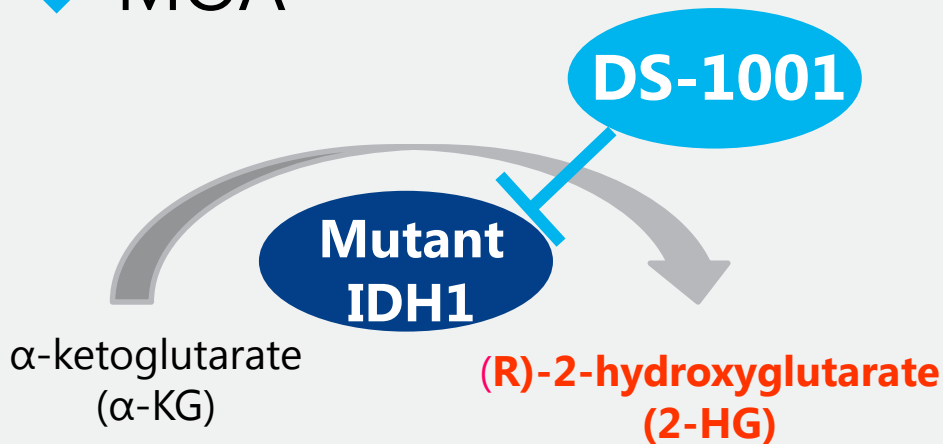
DS-1062: P1 Study Efficacy Spider Plot



◆ **Confirmed PRs in a dose-dependent manner**

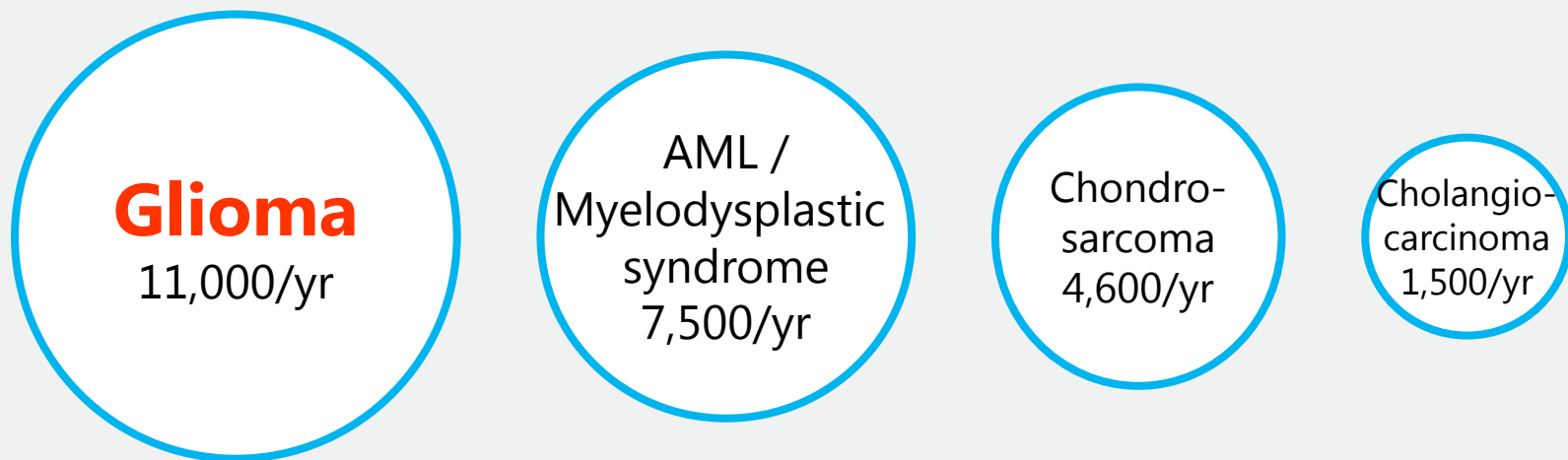
DS-1001: Mutant IDH1 Inhibitors

◆ MOA



- Mutant IDH1 is an enzyme that converts α-KG to 2-HG
- 2-HG is an oncometabolite, accumulation of which leads to oncogenesis and subsequent clonal expansion via epigenetic dysregulation
- Inhibition of mutant IDH1 enzymes could lead to a novel antitumor therapy

◆ Annual incidence of diseases with IDH1 mutations



Numbers and circle sizes indicate the estimated number of patients with IDH1m (annual incidence/year in JP/US/EU: our estimates)

DS-1001: P1 Study Patients Baseline Characteristics

Characteristic	Enhancing (n=35)	Non-enhancing (n=12)	Total (N=47)
Median age, years (range)	46.0 (29–77)	38.5 (28–49)	44.0 (28–77)
Gender: male/female, n (%)	21 (60) / 14 (40)	8 (67) / 4 (33)	29 (62) / 18 (38)
ECOG PS: 0/1/2, n (%)	19(54) / 13(37) / 3(9)	8(67) / 4(33) / 0	27(57) / 17(36)/ 3(6)
IDH1 mutation: R132H/others ^a , n (%)	34 (97) / 1 (3)	12 (100) / 0	46 (98) /1 (2)
Most recent diagnosis, n (%)			
Oligodendroglioma	2 (6)	2 (17)	4 (9)
Anaplastic oligodendroglioma	13 (37)	1 (8)	14 (30)
Diffuse astrocytoma	6 (17)	7 (58)	13 (28)
Anaplastic astrocytoma	6 (17)	2 (17)	8 (17)
Anaplastic oligoastrocytoma	1 (3)	0	1 (2)
Glioblastoma	7 (20)	0	7 (15)
Median duration from initial diagnosis, years (range)	4.9 (0.5–15.3)	5.8 (2.4–12.6)	5.2 (0.5–15.3)
Prior radiation therapy, n (%)	35 (100)	12 (100)	47 (100)
Prior chemotherapy, n (%)	30 (86)	8 (67)	38 (81)

Data cutoff was on May 7, 2019. ^a One patient had a IDH-R132L mutation.
ECOG = Eastern Cooperative Oncology Group; IDH = isocitrate dehydrogenase; PS = performance status.

- ◆ **Enhancing: patients who have tumor(s) with gadolinium enhancement on MR images. It is common in high-grade gliomas like glioblastoma**
- ◆ **Non-enhancing: patients who have no gadolinium-enhanced tumor. Most common in low-grade gliomas**

DS-1001: P1 Study Safety Summary

AEs occurring in $\geq 10\%$ of patients, regardless of causality

Preferred term, n (%) ^a	All grades (N=47)	Grade ≥ 3 (N=47)
Skin hyperpigmentation	25 (53.2)	0
Diarrhea	22 (46.8)	2 (4.3)
Pruritus	14 (29.8)	0
Alopecia	12 (25.5)	0
Arthralgia	12 (25.5)	0
Nausea	12 (25.5)	0
Headache	10 (21.3)	0
Rash	10 (21.3)	0
Dry skin	9 (19.1)	0
Vomiting	9 (19.1)	0
Back pain	7 (14.9)	0
Neutrophil count decreased	7 (14.9)	6 (12.8)
Feces soft	6 (12.8)	0
Nasopharyngitis	6 (12.8)	0
Decreased appetite	5 (10.6)	0

- ◆ One DLT was observed at a dose of 1000 mg bid
 - Grade 3 WBC count decreased
- ◆ **MTD was not reached up to 1,400mg bid**
- ◆ No drug-related serious AEs
- ◆ 19 patients (40%) experienced at least one AE of Grade 3
 - No Grade 4 or 5 AEs were reported

Data cutoff was on May 7, 2019.

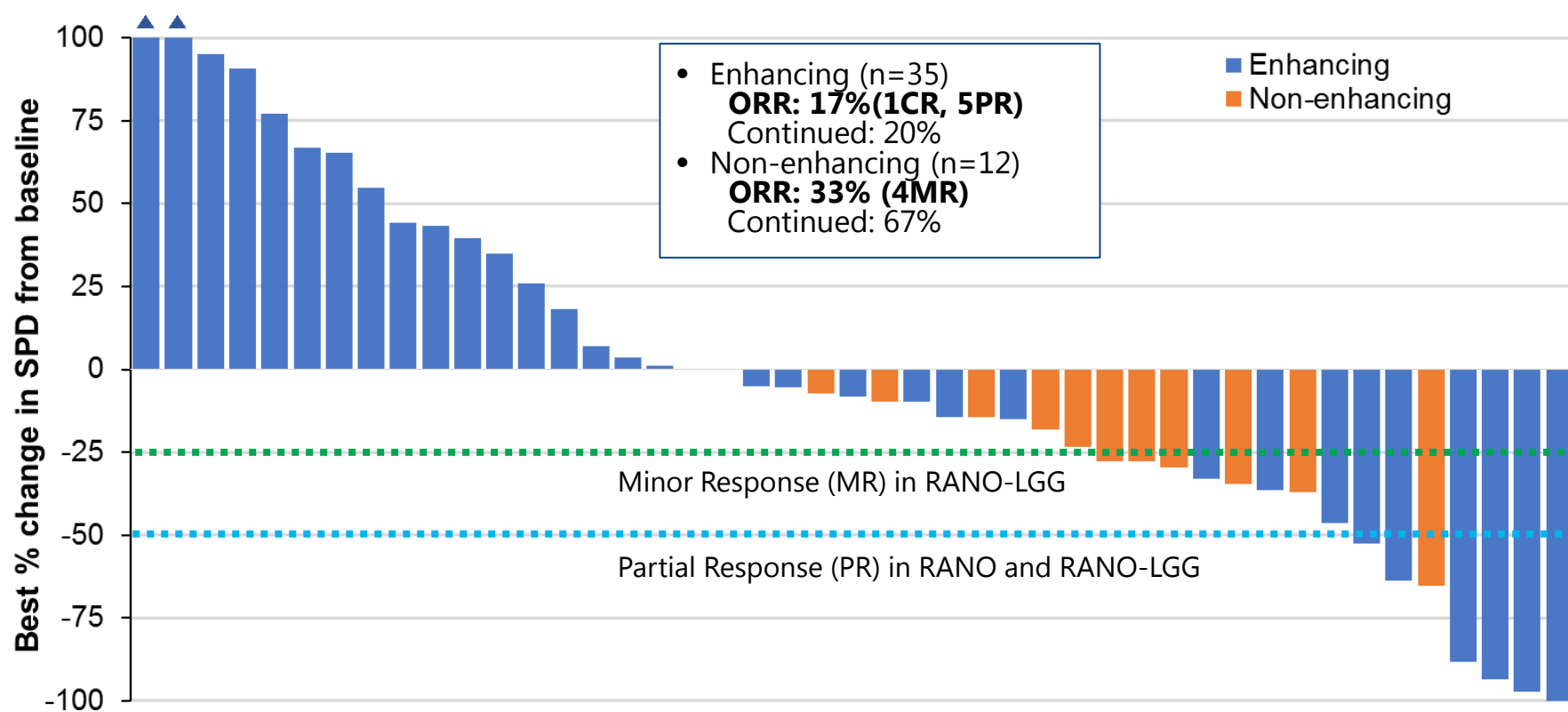
^a A patient was counted once if the same AE was reported more than once.

AE = adverse event; DLT = dose-limiting toxicity;

MTD = maximum tolerated dose; WBC = white blood cell.

◆ **DS-1001 was generally well-tolerated to date**

DS-1001: Efficacy Waterfall Chart



Data cutoff was on May 7, 2019.

Enhancing gliomas were assessed by RANO criteria, and non-enhancing gliomas were assessed by RANO-LGG criteria.

▲ These two patients showed change over 100% (188% and 155%).

LGG = low-grade gliomas; RANO = Response Assessment in Neuro-Oncology; SPD = sum of the products of perpendicular diameters.

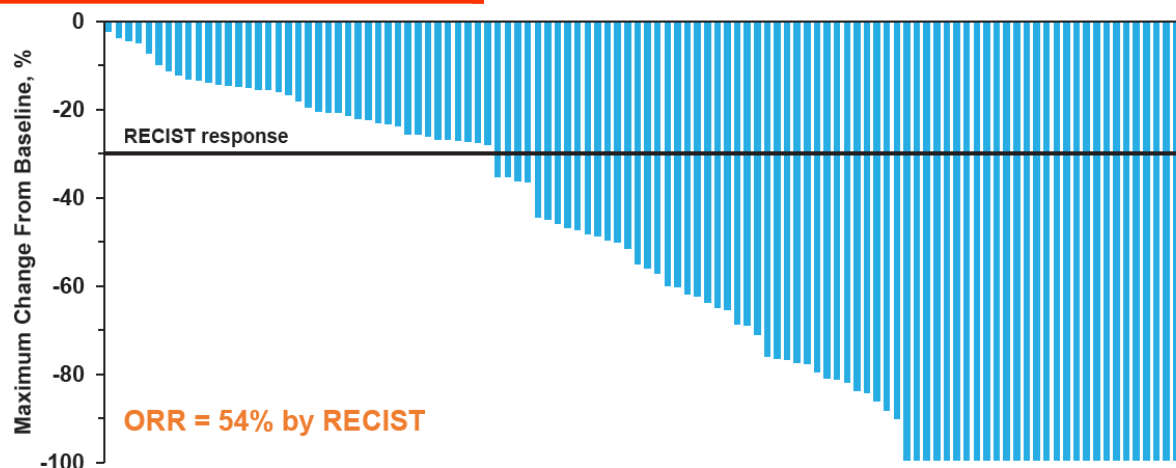
◆ **Antitumor activity was confirmed in both contrast enhancing and non-enhancing tumors**

Pexidartinib: Efficacy Update of TGCT

	ASCO2019	ASCO2018	
	Long-term Treatment Pooled Analysis (Updated ENLIVEN & Ph1)	ENLIVEN Primary Endpoint Results	
	Pexidartinib n=130*	Pexidartinib n=61	Placebo n=59
RECIST Best ORR (CR or PR), n (%)	70 (54%)	24 (39%)	0
Median treatment duration, month (range)	17 (1-60+)	-	-
Median (range) RECIST duration of response, month (range)	Not Reached (2-53+)	-	-

*Breakdown of n=130

- ENLIVEN Randomized (1000mg/d): n=61
- ENLIVEN Crossover (800mg/d): n=30
- PLX106-01 TGCT Cohort (1000mg/d): n=39



◆ ORR improved after long-term treatment

Source: Tap-D *et al.*, Abstract #11502, ASCO 2018, Data cutoff: March 27, 2017

Source: Gelderblom-H *et al.*, Abstract #11042, ASCO 2019, Data cutoff: January 31, 2018

Pexidartinib: Hepatotoxicity Update of TGCT Patients

	ASCO 2019		ASCO 2018	
	Pexidartinib Randomized (1000mg/d) n=61	Pexidartinib Crossover (800mg/d) n=30	Pexidartinib Randomized (1000mg/d) n=61	Pexidartinib Crossover (800mg/d) n=30
ALT or AST ≥ 3 x, Tbili ≥ 2 x, and ALP < 2 x ULN (Hy's law)	0	0	0	0
ALT or AST ≥ 3 x, Tbili ≥ 2 x, and ALP ≥ 2 x ULN	3* (5%)	0	3* (5%)	0
Tbili ≥ 2 x ULN (in absence of ALT ≥ 3 x ALP ≥ 2 x ULN)	0	0	0	0

*All 3 patients recovered

Safety data of long-term administration
of pexidartinib to the same population

◆ **No new mixed or cholesteric hepatotoxicity, beyond the serious cases in the first 8 weeks of treatment**

Source: Tap-D *et al.*, Abstract #11502, ASCO 2018, Data cutoff: March 27, 2019

Source: Gelderblom-H *et al.*, Abstract #11042, ASCO 2019, Data cutoff: January 31, 2018

Upcoming Milestones

DS-8201



HER2 positive mBC pivotal phase 2 study

- US: BLA submission in 1H FY2019
- JP: NDA submission in 2H FY2019
- EU: MAA submission in 1H FY2020
- Presentation at SABCS: December 2019 (planned)



HER2 positive mGC pivotal phase 2 study

- **JP: NDA submission in 1H FY2020**

U3-1402



EGFRm NSCLC phase 1 study

- **WCLC: interim data update (planned)**

DS-1062



NSCLC phase 1 study

- **WCLC: interim data update (planned)**



WCLC (World Conference on Lung Cancer)

Date: September 7-10, 2019

Location: Barcelona, Spain

- **Abstract Title: August 2, 2019**
- **Full Abstract: 17:00, August 21, 2019 (EDT)**

Upcoming Milestones

Quizartinib



Relapsed/refractory FLT3-ITD AML

- QuANTUM-R published in *The Lancet Oncology* in June 2019
- Japan: approved on June 18, 2019
- US: received CRL in June 2019
- EU: under review for 2H FY2019 approval

Pexidartinib



Tenosynovial giant cell tumor

- ENLIVEN published in *The Lancet* in June 2019
- USA: completed ODAC (80% positive ODAC vote)
FDA PDUFA 2019 August 3
- EU: under review for 1H FY2020 approval

DS-1647 (G47Δ)



Malignant glioma

- NDA submission in 2H FY2019 (Japan)

CRL: complete response letter, ODAC: Oncology Drug Advisory Committee

Announcement of FY2019 R&D Day

R&D Day in Tokyo

Date

December 17 (Tuesday) afternoon [live & on-demand casting planned]

Speakers

Sunao Manabe, CEO
Antoine Yver, Global Head of Oncology R&D

R&D Day in New York

Date

December 19 (Thursday) afternoon [on-demand casting planned]

Speakers

Sunao Manabe, CEO
Antoine Yver, Global Head of Oncology R&D

◆ **The content will be the same on both days**

① FY2019 Q1 Financial Results

② Business Update


③ R&D Update

④ **Appendix**



FY2019 R&D Milestones




























As of July 2019

Project	Target Indications and Studies	FY2019				FY2020
		Q1	Q2	Q3	Q4	Q1~
DS-8201	P2 pivotal: breast cancer (HER2 positive post T-DM1)	US submission		JP submission		EU submission
	P2 pivotal: gastric cancer (HER2 positive post trastuzumab) (JP/Asia)					<u>JP submission</u>
	P2: gastric cancer (US/EU)		Study start			
	P1: breast cancer and NSCLC with pembrolizumab			Study start		
U3-1402	P1: NSCLC			<u>Start dose expansion</u>		
DS-1062	P1: NSCLC		<u>Started dose expansion</u>			
DS-7300	P1: solid tumors			<u>Study start</u>		
DS-6157	P1: gastrointestinal stromal tumors (GIST)				<u>Study start</u>	
Quizartinib	P3: AML (relapsed/refractory)	<u>JP approved</u> <u>US CRL</u>				
DS-3201	P1: small cell lung cancer (US)	<u>Study started</u>				
Pexidartinib	P3: tenosynovial giant cell tumor (US/EU)		US approval planned			
DS-1647	IIS: malignant glioma (JP)		 <u>Submission</u>			
DS-1205	P1: NSCLC with osimertinib (Asia)	<u>Study started</u>				
Laninamivir	P3: influenza (nebulizer formulation) (JP)	<u>Approved</u>				


AML: acute myeloid leukaemia, CRL: complete response letter, NSCLC: non-small-cell lung cancer


Major R&D Pipelines-1

As of July 2019

	Generic Name/Project Code/ MOA	Target Indication	Region	Stage			
				P1	P2	P3	NDA/BLA
Oncology	ADC Franchise	Breast cancer (HER2 positive post T-DM1) 	JP/US/EU/Asia				
		Breast cancer (HER2 positive vs T-DM1)	JP/US/EU/Asia				
		Breast cancer (HER2 low expression)	JP/US/EU/Asia				
		Gastric cancer (HER2 positive post trastuzumab) 	JP/Asia				
		Colorectal cancer (HER2 expressing)	JP/US/EU				
		NSCLC (HER2 expressing/mutant)	JP/US/EU				
		Breast and bladder cancer (with nivolumab)	US/EU				
	U3-1402/anti-HER3 ADC	Breast cancer (HER3 expressing)	JP/US				
		EGFRm NSCLC	JP/US				
		DS-1062/anti-TROP2 ADC	JP/US				
	AML Franchise	Quizartinib/FLT3 inhibitor	EU/Asia				
		AML (1 st line) 	JP/US/EU/Asia				
		Milademetan/DS-3032/ MDM2 inhibitor	JP/US				
		AML	JP/US				
		Peripheral T-cell lymphomas 	JP/US				
		Valemetostat/DS-3201/ EZH1/2 inhibitor	JP				
		AML, ALL	US				
		Small cell lung cancer	US				
		PLX2853/BET inhibitor	US				
		Axicabtagene ciloleucel/Axi-Cel®/ anti-CD19 CAR-T	JP				
















ALL: acute lymphocytic leukemia, AML: acute myeloid leukemia, NSCLC: non-small-cell lung cancer

 : Project in Oncology that is planned to be submitted for approval based on the results of Phase 2 trials

 : Designation for first review (Japan), designation for breakthrough therapy (FDA), and designation for orphan drugs

Major R&D Pipelines-2

As of July 2019

		Generic Name/Project Code/ MOA	Target Indication	Region	Stage			
					P1	P2	P3	NDA
Oncology	Breakthrough Science	Pexidartinib/ CSF-1/KIT/FLT3 inhibitor	Tenosynovial giant cell tumor 🏆	US/EU				
		DS-1647(G47Δ)/oncolytic HSV-1	Malignant glioma 🏆	JP				
		DS-1001/ Mutant IDH1 inhibitor	Glioma	JP				
		DS-1205/AXL inhibitor	NSCLC (with gefitinib)	JP				
			NSCLC (with osimertinib)	Asia				
Specialty Medicines		Edoxaban/FXa inhibitor	Atrial fibrillation in the very elderly	JP				
		Prasugrel/anti-platelet agent	Ischemic stroke	JP				
		Esaxerenone/MR-Antagonist	Diabetic nephropathy	JP				
		DS-1040/TAFIa inhibitor	Acute ischemic stroke, acute pulmonary thromboembolism	JP/US/EU				
		Mirogabalin/α ₂ δ ligand	Central neuropathic pain	JP/Asia				
		DS-5141/ENA-oligonucleotide	Duchenne type muscular dystrophy 🏆	JP				
		DS-1211/TNAP inhibitor	Inhibition of ectopic calcification	US				
Vaccine		VN-0107/MEDI3250/live attenuated influenza vaccine nasal spray	Prophylaxis of seasonal influenza	JP				
		VN-0105/DPT-IPV/Hib	Prevention of pertussis, diphtheria, tetanus, poliomyelitis and Hib infection	JP				
		VN-0102/JVC-001/ Measles-mumps-rubella vaccine	For measles, mumps, and rubella prophylaxis	JP				

NSCLC: non-small-cell lung cancer

★ : Project in Oncology that is planned to be submitted for approval based on the results of Phase 2 trials

🏆 : Designation for first review (Japan), designation for breakthrough therapy (FDA), and designation for orphan drugs

Out-licensing Projects

As of Jul 2019

	Pre-clinical	Phase 1
Oncology		<p>PLX7486: FMS/TRK inhibitor Solid tumor</p> <p>PLX8394: BRAF inhibitor Solid tumor</p> <p>PLX9486: KIT inhibitor Solid tumor (gastrointestinal stromal tumor)</p>
Specialty Medicine	<p>DS-1515: PI3Kδ inhibitor Inflammatory disease</p> <p>DS-1039: new MOA (CFTR independent fluid secretion) Cystic fibrosis</p> <p>ASB29609: 5-HT_{5A} receptor agonist Circadian rhythm sleep-wake disorders</p>	<p>DS-2969: GyrB inhibitor Clostridium difficile infection</p> <p>DS-1093: HIF-PH inhibitor inflammatory bowel disease (IBD)</p> <p>DS-7080: angiogenesis inhibitor Age-related macular degeneration (AMD)</p> <p>DS-1501: anti Siglec-15 antibody *US/EU (other than JP) Osteoporosis</p>

Listing of abbreviations

Abbreviations	English	Implications
AE	Adverse event	Undesirable experience associated with the use of a medical product in a patient
BTD	Breakthrough therapy designation	Designation of innovative therapeutics
CR	Complete response	Complete response (complete resolution of cancer)
CRL	Complete response letter	Letter issued by the FDA after completion of its review and determined the application cannot be approved based on the current submission
DCR	Disease control rate	Disease control rate (percentage of patients with controlled disease status)
DLT	Dose limiting toxicity	Dose-limiting toxicities (toxicities that may explain the inability to escalate doses)
DOR	Duration of response	Duration of response (duration of response)
EGFR	Epidermal growth factor receptor	Epidermal growth factor receptor
MTD	Maximum tolerated dose	Maximum tolerated dose (dose with intolerable toxicity)
ORR	Overall response rate Objective response rate	Overall response rate (expressed as the proportion of patients who responded to treatment and the sum of CR and PR)
OS	Overall survival	Overall survival (time from start of treatment to death)
PD	Progress disease	Disease progression (worsening disease despite treatment)
PFS	Progression-free survival	Progression-free survival (without cancer progression)
PR	Partial response	Partial response (a reduction in the size of the cancer by 30% or more that lasts for 4 weeks)
SD	Stable disease	The size of the cancer is almost unchanged before and after treatment
TEAE	Treatment emergent adverse event	Any event not present prior to the initiation of the treatments or any event already present that worsens in either intensity or frequency following exposure to the treatments

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