



West Japan Oncology Group

[WJOG11619L]

Phase II study of Durvalumab (MEDI4736) Plus Concurrent Radiation  
Therapy in Advanced Localized NSCLC Patients  
(Dolphin study)

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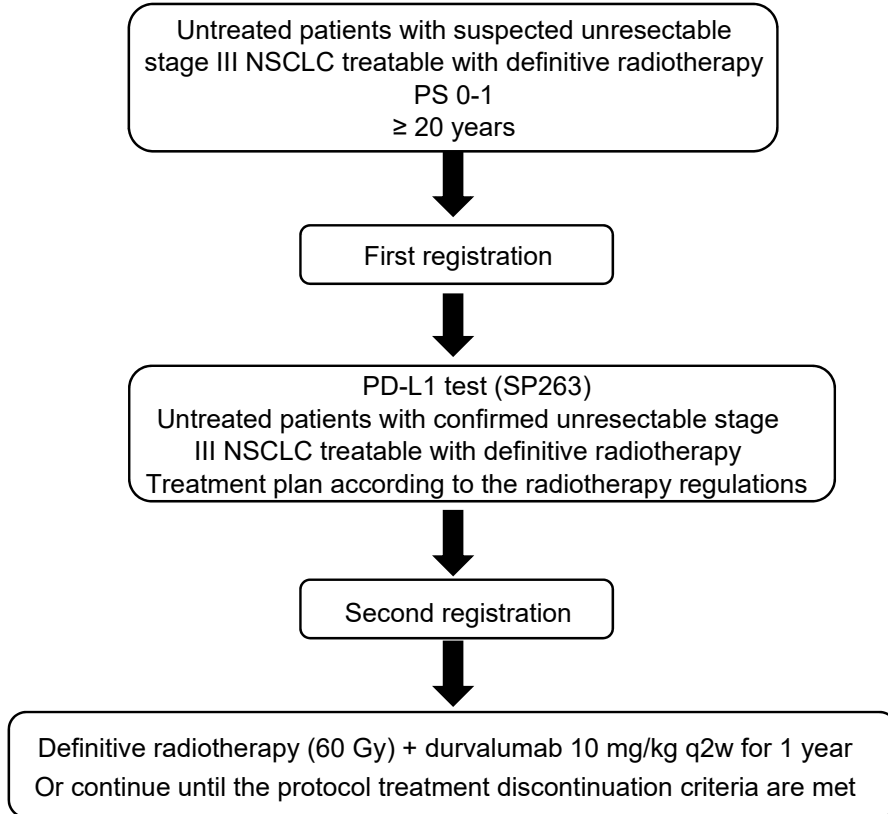
Ver.3.2 Date: April 30, 2022

JapicCTI-No.: JapicCTI- 194840

32 **0. Summary**

33 **0.1. Schema**

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57 **0.2. Objectives**

58 The objective of this study is to assess the efficacy and safety of the combination therapy of  
59 durvalumab and definitive radiotherapy in untreated patients with unresectable stage III NSCLC  
60 treatable with definitive radiotherapy.

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- 62 - **Primary endpoint:** 12-month proportion progression-free
- 63 - **Secondary endpoints:** Progression-free survival, 18-month proportion progression-free,  
64 overall survival, 2-year survival rate, treatment completion rate,  
65 duration of treatment response, response rate, disease control rate,  
66 time to death or distant metastasis, safety, differences in effect  
67 depending on patient background / PD-L1 expression

69 **0.3. Subjects**

70 0.3.1. Eligibility criteria for the first registration

71 All the following must be satisfied:

72 [IC]

- 73 1) Patients aged 20 years or older when the informed consent is obtained  
74 2) Patients providing a written informed consent and willing to comply with the protocol after he /  
75 she receives full explanation of the study details prior to the registration in this study.

76 [Histologic type]

- 77 3) NSCLC diagnosed by histology

78 [Spread of lesions]

- 79 4) Patients presumed to be treatable with definitive radiotherapy at the stage IIIA/IIIB/IIIC based  
80 on the General Rule for Clinical and Pathological Record of Lung Cancer, 8th Edition or  
81 postoperative recurrent disease that is curable by thoracic radiotherapy.

- 82 5) Patients with measurable lesions according to the Response Evaluation Criteria in Solid  
83 Tumors (RECIST) ver1.1.

84 [Prior therapy for lung cancer]

- 85 6) Untreated with chemotherapy  
86 7) Postoperative recurrent patients can be registered if there were no adjuvant therapy or 24 weeks  
87 (168 days) have passed since the last date of administration of the postoperative chemotherapy.  
88 Patients who received the postoperative radiotherapy are excluded.

89 [Physical findings and examination]

- 90 8) 0-1 in ECOG performance status (PS)  
91 9) There are no severe disorders in major organs (bone marrow, heart, lung, liver, kidney, etc.),  
92 and the following criteria are satisfied:

93 (Use the latest data for registration among those obtained within 14 days from the registration  
94 date. Based on the registration date, the same day of the week as two weeks before is allowed.)

- 95 · Neutrophil count  $\geq 1500/\text{mm}^3$   
96 · Hemoglobin  $\geq 9.0$  g/dL  
97 · Platelet count  $\geq 10 \times 10^4/\text{mm}^3$   
98 · AST, ALT  $\leq 100$  IU/L  
99 · Total bilirubin  $\leq 2.0$  mg/dL  
100 · Creatinine  $\leq 2.0$  mg/dL  
101 · Creatinine clearance  $\geq 40$  mL/min (estimated value by the Cockcroft-Gault formula<sup>\*1</sup>)  
102 · SpO<sub>2</sub>  $\geq 93\%$  (room air)

- 103 10) Patients must weigh 30 kg or more.

104 \*<sup>1</sup> When the estimated value of creatinine clearance is less than 40 mL/min, an actual  
105 measurement value is essential by the second registration.

106 [Others]

107 11) Patients expected to survive for at least 12 weeks from the start of treatment.

108

109 0.3.2. Eligibility criteria for the second registration

110 [Stage]

111 1) Patients at stage IIIA/IIIB/IIIC treatable with definitive radiotherapy based on the  
112 Classification of Lung Cancer, 8th Edition or postoperative thoracic recurrence that is curable  
113 by radiotherapy.

114 [PD-L1 expression]

115 2) PD-L1 expression of tumor cells accounts for 1% or more (SP263)

116 [Radiotherapy]

117 3) A radiation oncologist confirms that the irradiation specified in the WJOG 11619L  
118 Radiotherapy Regulations (Addendum) is possible.

119 [Others]

120 4) Patients can be confirmed to be post-menopausal or have a negative urine or serum pregnancy  
121 test result.

122 · Women  $\leq$  50 years of age: Pregnancy test negative. (However, pregnancy test will be  
123 omitted if the patient has undergone bilateral oophorectomy, bilateral salpingectomy, or  
124 hysterectomy.)

125 · Women  $\geq$  50 years of age: Have been amenorrheic for  $\geq$  12 months following cessation of  
126 all exogenous hormonal treatments. If not amenorrheic, a pregnancy test will be  
127 performed. (However, pregnancy test will be omitted if the patient has undergone bilateral  
128 oophorectomy, bilateral salpingectomy, or hysterectomy.)

129

#### 130 **0.4. Exclusion criteria for the second registration**

131 [Multiple cancers]

132 1) Active multiple cancers\*<sup>1</sup>

133 \*<sup>1</sup> Multiple cancers refer to homochronous multiple cancers or heterochronous multiple cancers  
134 with a cancer-free period of no more than 3 years. Carcinoma in situ (intraepithelial carcinoma)

135 or lesions equivalent to intramucosal carcinoma that are deemed to have been cured by local  
136 treatment are not included in active multiple cancers.

137 [Complications/infection]

138 2) Patients with active systemic infection. (Including tuberculosis)

139 3) Patients with active hepatitis B or active hepatitis C (even if HBs antibody is positive, they are  
140 eligible if the viral load is below sensitivity and hepatitis is not active).

141 [Complications/interstitial pneumonia/autoimmune disease]

142 4) Patients with interstitial lung disease evident on CT.

143 5) Patients with complicating active autoimmune disease or history of autoimmune disease  
144 requiring steroid therapy or immunosuppressants\*<sup>2</sup>

145 \*<sup>2</sup> Note that the following patients are eligible:

146 (1) Patients using a stable dose of thyroid supplement hormone for autoimmune-related  
147 hypothyroidism

148 (2) Patients receiving a stable dose of insulin regimen for well-controlled type I diabetes  
149 mellitus

150 (3) Patients are eligible when patients with eczema, psoriasis, lichen simplex chronicus or  
151 only dermatologic symptoms of vitiligo satisfy the following:

152 The rash area accounts for less than 10% of the body surface area (BSA); only  
153 topical-steroid treatment is required; and no acute exacerbation of underlying condition  
154 observed within the past 12 months. Patients are eligible in this study when the dose of  
155 steroids is equivalent to prednisolone 10 mg/day or less.

156 6) Patients who need continued systemic (oral or intravenous) administration of steroids  
157 equivalent to prednisolone > 10 mg/day, or who used immunosuppressants within 14 days  
158 before registration for indications other than autoimmune disease\*<sup>3</sup>

159 \*<sup>3</sup> However, patients receiving steroids 10 mg/day or less for the following reasons are eligible:

160 (1) Patients taking oral steroid equivalent to prednisolone 10 mg/day or less as replacement  
161 therapy for adrenal failure, etc.

162 (2) Patients who acutely received steroid equivalent to prednisolone 10 mg/day or less for  
163 COPD

164 (3) Patients receiving mineralocorticoid for orthostatic hypotension

165 (4) Patients treated with steroids as premedication for hypersensitivity reactions (e.g.  
166 premedication before CT scan) or topical steroids (e.g. nasal cavity, eye, skin)

167 [Complications/circulatory organ]

168 7) Patients with a history of symptomatic congestive heart failure, unstable angina, or myocardial  
169 infarction within 1 year prior to registration.

170 8) Patients with clinically serious arrhythmia detected by ECG (complete left bundle branch block,

- 171 third-degree atrioventricular block, second-degree atrioventricular block).  
172 [Others]
- 173 9) Patients with a history of immunotherapy including immune antibody therapy.
  - 174 10) Patients showing morphological differentiation in the nervous system or histologic type  
175 combined with small cell lung cancer and NSCLC.
  - 176 11) Patients with a history of serious drug allergy.
  - 177 12) Patients with uncontrolled diabetes mellitus despite appropriate treatment.
  - 178 13) Pregnant females, lactating females, females who may be pregnant at the moment, or males or  
179 females with reproductive capacities who have no intention of using effective contraception  
180 from screening to 90 days after the last dose of durvalumab monotherapy.
    - 181 · Women  $\leq$  50 years of age: Pregnancy test negative. (However, pregnancy test will be  
182 omitted if the patient has undergone bilateral oophorectomy, bilateral salpingectomy, or  
183 hysterectomy.)
    - 184 · Women  $\geq$  50 years of age: Have been amenorrheic for  $\geq$  12 months following cessation of  
185 all exogenous hormonal treatments. If not amenorrheic, a pregnancy test will be  
186 performed. (However, pregnancy test will be omitted if the patient has undergone bilateral  
187 oophorectomy, bilateral salpingectomy, or hysterectomy.)
  - 188 14) Patients judged to be difficult to be registered for this study due to clinically important mental  
189 illness.
  - 190 15) Patients who may become a blood donor during the study and within 90 days from the last  
191 administration.
  - 192 16) Patients who received a live vaccine within 30 days before registration. Patients who may  
193 receive a live vaccine during the study and within 30 days from the last administration.
  - 194 17) Other patients judged by the investigator, etc. to be ineligible.
- 195

## 196 **0.5. Treatment**

197 Durvalumab will be combined with radiotherapy(60Gy). Durvalumab 10 mg/kg will be  
198 administered on Day 1 and as 2-week (14-day) cycles for 1 year. Definitive thoracic radiotherapy  
199 will begin on Day 1, Durvalumab be administered up to 1 year or until the protocol  
200 discontinuation criteria are met.  
201

## 202 **0.6. Planned number of registered subjects and research period**

203 Target number of subjects to be registered: 35

204 Study period: From August 15, 2019 to 31 May

205 Subject registration period: From August 15, 2019 to December 15, 2020

206 Follow-up period: 1.5 years from the date of last subject's registration

207

208

209 Note that early analysis will be performed according to the procedure separately specified to  
210 determine whether or not treatment should be discontinued when 20 subjects complete a  
211 simultaneous combination therapy of radiotherapy and durvalumab. When progressive disease (PD)  
212 rate at the end of radiotherapy is observed in 6 subjects (30%) or more, the study will be terminated  
213 early. Registration will not be suspended during the early analysis.

## 214 **0.7. Contact**

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239

240 **0.8. Study Operation Cost**

241 The cost for operation of this study will be supported by AstraZeneca K.K..

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## 398 **1. Objective**

399 The objective of this study is to assess the efficacy and safety of the combination therapy of  
400 durvalumab and definitive radiotherapy in untreated patients with unresectable stage III NSCLC  
401 treatable with definitive radiotherapy.

402

- 403 - **Primary endpoint:** 12-month proportion progression-free
- 404 - **Secondary endpoints:** Progression-free survival, 18-month proportion progression-free,  
405 overall survival, 2-year survival rate, treatment completion rate,  
406 duration of treatment response, response rate, disease control rate,  
407 time to death or distant metastasis, safety, difference in effect  
408 depending on patient background/PD-L1 expression

409

## 410 **2. Background and rationale for the study plan**

### 411 **2.1. Background**

#### 412 2.1.1. Epidemiology of lung cancer

413 Lung cancer is a common malignancy in the world. According to data from the Global Burden  
414 of Cancer Study (GLOBOCAN) 2012 reported by the WHO European Region, the annual number of  
415 patients with lung cancer is estimated to be approximately 1.825 million and the annual number of  
416 deaths is estimated to be approximately 1.59 million in the world<sup>1)</sup>. According to "Cancer  
417 Registries/Statistics" by the Center for Cancer Control and Information Services of the National  
418 Cancer Center in Japan, the estimated number of patients with lung cancer in 2017 was 86,700 men  
419 and 42,000 women, totaling 128,700, and the numbers of patients with cancer by site show that lung  
420 cancer ranked the third after stomach and large intestine<sup>2)</sup>. The number of deaths from lung cancer in  
421 2017 was estimated to be the highest (55,600 men, 22,400 women, totaling 78,000)<sup>2)</sup>. Lung cancer is  
422 classified into adenocarcinoma, squamous cell carcinoma, large cell carcinoma, small cell carcinoma,  
423 etc. according to the histologic type<sup>3)</sup>, and is broadly divided into small cell lung cancer and  
424 non-small cell lung cancer according to the pathology and treatment policy. Non-small cell lung  
425 cancer (NSCLC) accounts for 85% of all lung cancers, and is classified into squamous cell  
426 carcinoma, adenocarcinoma, large cell carcinoma, etc. according to the histologic type.  
427 Adenocarcinoma accounts for more than half of all NSCLC<sup>4)</sup>. Treatment of lung cancer is selected  
428 based on staging by the TNM classification. According to the Clinical Practice Guideline for Lung  
429 Cancer 2018 by the Japan Lung Cancer Society<sup>5)</sup>, surgical resection is the standard treatment for  
430 clinical stage I and II NSCLC. For locally advanced clinical stage III cancer, therapeutic strategy is  
431 subdivided based on T and N factors. For clinical stage IIIA, either surgical resection,

432 chemoradiotherapy, or radiotherapy alone is selected according to the TNM classification,  
433 resectability, and feasibility of definitive radiotherapy. For clinical stage IIIB, chemoradiotherapy is  
434 the standard therapy. Among unresectable clinical stage IIIA, IIIB, and IIIC cancers, chemotherapy  
435 is the standard therapy for patients untreatable with definitive radiotherapy and patients with clinical  
436 stage IV cancer.

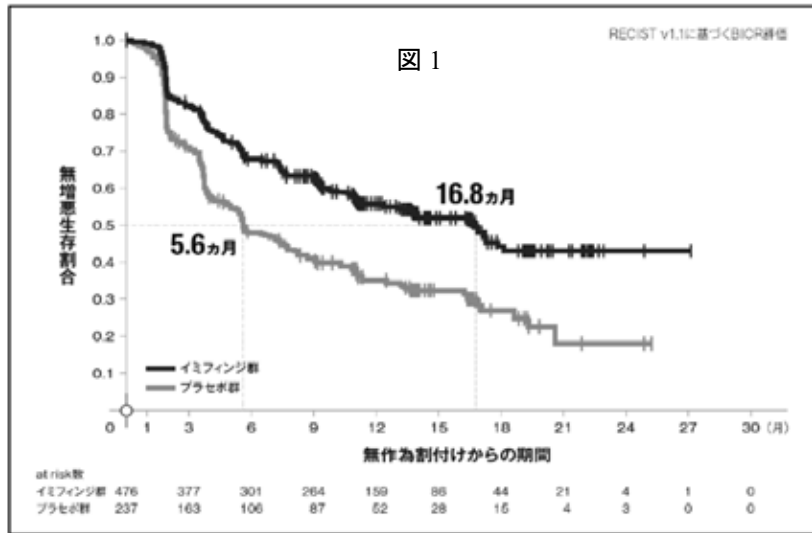
#### 437 2.1.2. Selection of study population and its rationale

438 According to a nationwide survey of lung cancer patients treated in Japan in 2002, of patients  
439 in whom NSCLC was diagnosed, 11.8% had clinical stage IIIA and 16.3% had clinical stage IIIB  
440 cancer at the time of diagnosis, and the 5-year survival rate of these patients was reported to be  
441 30.9% and 16.7%, respectively<sup>6)</sup>. For these stage III NSCLCs, the result of a meta-analysis  
442 summarizing studies comparing radiation monotherapy and chemoradiotherapy showed that the  
443 survival rate in patients treated with chemoradiotherapy was significantly higher than that in patients  
444 treated with radiation monotherapy (HR 0.87, P=0.0052, 15-30% reduction in the risk of death at 2  
445 years)<sup>7-8)</sup>, indicating that chemoradiotherapy has long been the main treatment approach. However,  
446 the 5-year survival rate is as poor as approximately 15-20%<sup>7-9)</sup>, which is by no means satisfactory.  
447 Therefore, in this study, patients with unresectable NSCLC treatable with definitive radiotherapy  
448 were selected as the target population.

## 449 **2.2. Standard of care for the subjects**

450 In recent years, PD-1/PD-L1 inhibitors, immuno-checkpoint inhibitors, were clinically used as  
451 standard therapy for advanced/recurrent NSCLC, and their effects were also considered promising in  
452 stage III. PACIFIC Study (an international phase III study) comparing durvalumab consolidation  
453 therapy (the durvalumab group) with the placebo group in patients with stage III NSCLC who  
454 achieved disease control after simultaneous chemoradiotherapy was conducted. Primary endpoints  
455 were set as both progression-free survival (PFS) and overall survival (OS), and the result of an  
456 intermediate analysis showed that the hazard ratio (HR) for PFS was 0.52 (16.8 months vs 5.6  
457 months, 95% CI: 0.42-0.65, P < 0.001), indicating that PFS was significantly extended in the  
458 durvalumab group as compared to the placebo group (Figure 1)<sup>10)</sup>. Then, it was reported that OS was  
459 also significantly extended in the durvalumab group with HR of 0.68 (NR vs 28.7 months, 95% CI:  
460 0.47-0.997, P=0.00251)<sup>11)</sup>. Based on this study result, durvalumab was approved in Japan in July  
461 2018 as maintenance therapy after definitive chemoradiation therapy for unresectable locally  
462 advanced NSCLC and became a new standard therapy.





463 無増悪生存期間のKaplan-Meier曲線 (最大解析対象集団)

464 **2.3. Protocol treatment**

465 2.3.1. Study treatment regimen in this study

466 Definitive thoracic radiotherapy (60 Gy) and durvalumab 10 mg/kg are used in combination.  
 467 Durvalumab will be administered on Day 1 and will be administered in 2-week cycles. Radiotherapy  
 468 will begin on Day 1. Durvalumab will be continued for up to 1 year or until the protocol treatment  
 469 discontinuation criteria are met.

470 2.3.2. Rationale for study plan

471 2.3.2.1. Rationale for concurrent use of radiotherapy and PD-L1 antibody

472 Detailed examinations of PACIFIC Study revealed that patients who received durvalumab  
 473 early (less than 14 days) after chemoradiotherapy showed better results on PFS than those who  
 474 received after 14 days<sup>10</sup>. In patients who received durvalumab less than 14 days after radiotherapy,  
 475 the PFS was HR 0.33 (95% CI: 0.20-0.55), and HR 0.70 (95% CI: 0.51-0.95 ) after 14 days. The  
 476 efficacy of the combination use of radiotherapy and immune antibody therapy has been shown in  
 477 many basic studies<sup>12)-19)</sup>. Irradiation causes an inflammatory response in the cancer  
 478 microenvironment through destruction of cancer cells, matures dendritic cells that present antigens  
 479 by causing immunogenic cell death (ICD), and induces more anti-tumor T cells. This causes not only  
 480 direct action of T cells but also increases in memory cells and abscopal effects. Abscopal effect is a  
 481 phenomenon in which tumor response is observed in a distant lesion outside the radiation field by  
 482 the enhancement of the systemic tumor immunity due to radiotherapy. Although the tumor response

483 is not observed frequently in radiation monotherapy, it may be enhanced by combining  
484 immuno-checkpoint inhibitors with radiotherapy<sup>15)</sup>. Radiation and PD-L1 expression have also been  
485 investigated, and radiotherapy has been shown to increase PD-L1 expression<sup>15)</sup> while PD-L1  
486 expression decreases over time<sup>20)</sup>. In addition, it has been reported that the combination of  
487 radiotherapy and PD-L1 antibody is most effective not when sequentially administered but when  
488 concurrently used<sup>21)</sup>. These phenomena are consistent with the fact that administration of  
489 durvalumab early after radiotherapy was more effective in PACIFIC. Moreover, in a clinical  
490 research, there was a report on a phase II comparative study in patients with oligometastatic  
491 advanced NSCLC, in which the group receiving pembrolizumab after radiotherapy on a metastatic  
492 site was compared with the group receiving pembrolizumab without radiotherapy. It was suggested  
493 that the group receiving pembrolizumab after radiotherapy had a prolonged OS effect as well as a  
494 better response rate<sup>22)</sup>. This shows the abscopal effect, a high systemic effect induced by the  
495 combination of radiotherapy and immuno-checkpoint inhibitors. Based on the above, it is  
496 hypothesized that the concurrent use of radiotherapy and PD-L1 inhibitors may have synergistic  
497 effects and may be most effective.

#### 498 2.3.2.2. Rationale for omission of chemotherapy

499 For stage III NSCLC, the roles of chemotherapy are a systemic anticancer effect and a  
500 radiosensitization effect (local effect to enhance the antitumor effect). As first-line treatment for  
501 patients with locally advanced or metastatic NSCLC which express PD-L1 in at least 1% of tumor  
502 cells, the anti-PD-1 antibody pembrolizumab significantly prolonged overall survival in patients  
503 treated with pembrolizumab monotherapy<sup>23)</sup>, demonstrating the superiority of PD-1 antibody therapy  
504 to chemotherapy in terms of systemic antitumor effect (KEYNOTE-042 Study). Although these  
505 results were obtained in patients with advanced NSCLC, it has been reported that  
506 immuno-checkpoint inhibitors exert their effects at a lower tumor burden<sup>24)</sup>, and therefore  
507 immuno-checkpoint inhibitors are expected to be more effective than chemotherapy also in stage III  
508 lung cancer. On the other hand, the sensitizing effect of immunotherapy has been suggested in basic  
509 studies as shown in 2.3.2.1. In addition, immune antibody therapy also has a potent local antitumor  
510 effect as well as a systemic anticancer effect. In a study investigating the effect of preoperative  
511 chemotherapy with nivolumab, it has been reported that the response rate by RECIST was 10% and  
512 the major pathological response (MPR) was 43% after 2 cycles of preoperative nivolumab<sup>25)</sup>, and a  
513 high local antitumor effect is expected when immuno-checkpoint inhibitors are combined with  
514 radiotherapy.

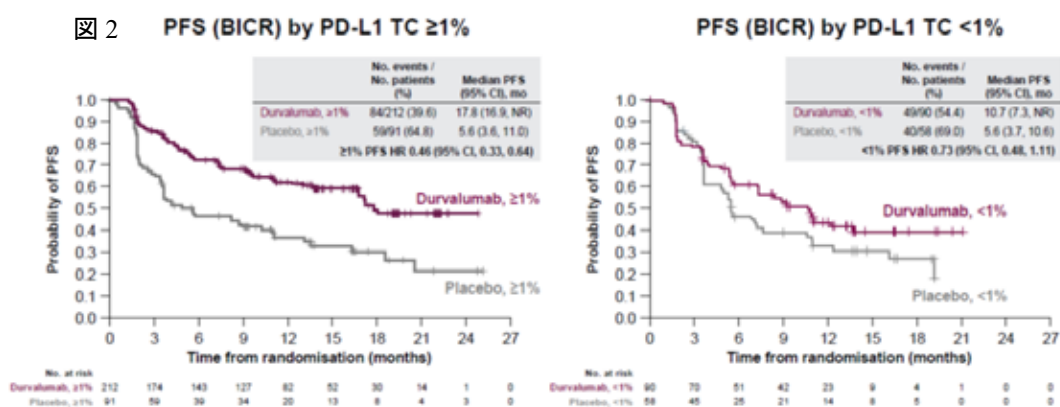
515 Adverse events caused by chemotherapy include bone marrow depression and organ disorder.  
516 Particularly in chemoradiotherapy, approximately 10% of patients experience febrile neutropenia,  
517 which may require suspension of radiotherapy. Another report says that there is a correlation  
518 between decreased lymphocyte count and prognosis in chemoradiotherapy<sup>26)</sup>. Therefore, the

519 possibility that suppressing bone marrow and decreasing lymphocyte count by chemotherapy may  
 520 decrease immune function cannot be ruled out. In addition, steroids are generally administered to  
 521 prevent adverse events such as nausea and allergy associated with chemotherapy. However, early  
 522 concomitant use of steroids has been reported to be a poor prognostic factor in immune antibody  
 523 therapy<sup>27</sup>). Therefore, steroids may weaken the effects of immune antibody therapy.

524 Based on the above, it is considered that if chemotherapy can be replaced with  
 525 immuno-checkpoint inhibitors in conventional chemoradiotherapy for stage III NSCLC, the  
 526 treatment may be effective with fewer adverse events.

### 527 2.3.2.3. Rationale for including patients with PD-L1 (SP263) $\geq 1\%$

528 Maintenance therapy effect of durvalumab was not shown in patients with negative PD-L1  
 529 (SP263) expression prior to treatment even in an post-hoc analysis of PACIFIC Study<sup>28</sup>). Therefore,  
 530 PD-L1 negative was excluded from the target population.



531

### 532 2.3.2.4. Other treatment regimens under development

533 Currently, a triple therapy regimen is tested in which chemoradiotherapy and immunotherapy  
 534 are concomitantly used and immunotherapy is conducted as maintenance therapy (NICOLAS-ETOP,  
 535 PACIFIC II). In NICOLAS-ETOP, the safety of 3-drug combination therapy with nivolumab is  
 536 being examined. The incidence of grade 3 or higher radiation pneumonitis reached 10.3%,  
 537 approximately 3-fold than that of the durvalumab group in PACIFIC. PACIFIC II is a study on triple  
 538 therapy with durvalumab, which is currently ongoing and no result has been reported. Although the  
 539 results of PACIFIC II are unknown, the triple therapy with chemoradiotherapy and immunotherapy  
 540 poses safety concerns including pneumonitis<sup>17</sup>). Even if the safety of PACIFIC II is confirmed, it  
 541 will not be possible to perform the triple therapy in all patients, and there will also be many patients  
 542 who cannot use the triple therapy in daily clinical practice. This study is designed to examine the  
 543 efficacy and safety of radiotherapy and immunotherapy that cannot be confirmed in PACIFIC and

544 PACIFIC II, and it will be of sufficient value to evaluate the results. In addition, if the study yields  
545 promising results, it may be a candidate for a new treatment with less toxicity and a high therapeutic  
546 effect.

547

548 Based on the results of these clinical and basic studies, durvalumab in combination with  
549 definitive radiotherapy may be a new treatment regimen with fewer adverse events and a high  
550 therapeutic effect for untreated patients with unresectable stage III NSCLC treatable with definitive  
551 radiotherapy. Therefore, we believed that it is beneficial to identify its efficacy and safety, and  
552 planned a Phase II Multicenter Single-Arm Study (an investigator-initiated clinical study).

## 553 **2.4. Study design**

### 554 2.4.1. Clinical hypothesis and phase setting for this study

555 This is a phase II study to explore the efficacy and safety of the combination therapy with  
556 durvalumab and definitive radiotherapy in untreated patients with unresectable stage III NSCLC  
557 treatable with definitive radiotherapy.

### 558 2.4.2. Rationale for endpoints

559 · Primary endpoint: 12-month progression-free survival rate

560 PFS curve shows The difference between the two groups (placebo and durvalumab) has widen  
561 at approximately 6 months, which is one of the primary endpoints in the PACIFIC Study, and the  
562 difference is almost parallel since after 6months. In immunotherapy, durable response can be  
563 expected in responders, and it is considered clinically significant in patients treatable with definitive  
564 radiotherapy to be progression-free for 1 year or longer than the median progression-free survival.  
565 Thus, proportion progression-free at 12 months was adopted as the primary endpoint in this study.

566 · Secondary endpoints: Progression-free survival, 18-month proportion progression-free,  
567 overall survival, 2-year survival rate, treatment completion rate,  
568 duration of treatment response, response rate, disease control rate, time  
569 to death or distant metastasis, safety, difference in effect depending on  
570 patient background/PD-L1 expression

571 As the efficacy endpoints in this study, the above items, which are the same as those in  
572 PACIFIC Study, will be assessed in addition to the 12-month proportion progression-free. The  
573 incidence of adverse events will also be assessed as there are no safety data on the combination use  
574 of radiotherapy and durvalumab.

575 2.4.3. Rationale for the number of registered subjects

576 In PACIFIC Study, the 12-month progression-free survival rate was 35.3% (95%CI: 29.0 to  
577 41.7) in the placebo group and 55.9% (95%CI: 51.0 to 60.4) in the durvalumab group. The 12-month  
578 progression-free survival rate in patients with PD-1  $\geq 1\%$  was 35% in the placebo group and 62% in  
579 the durvalumab group, although exact statistical values were not shown. Differently from PACIFIC  
580 Study, it should also be considered in this study that patients who cannot transit to durvalumab  
581 maintenance therapy due to enlarged tumors developed after immunoradiotherapy and patients who  
582 cannot transit to maintenance therapy due to decreased PS or adverse events account for 20% to 30%  
583 of all. Taking into account that inferiority to the conventional chemoradiotherapy is not allowed and  
584 based on the above, 32 patients are required when calculated on the assumption of the 12-month  
585 progression-free survival rate threshold of 28%, one-sided significance level of 5% with the  
586 expected value of 50%, the power of 80%, the registration period of 12 months and the follow-up  
587 period of 18 months. It was planned to registratet 35 patients considering some deviations and  
588 dropouts.

589 In addition, as this study does not require chemotherapy and the possibility of undertreatment  
590 cannot be ruled out, an early analysis will be carried out from an ethical point of view. Based on the  
591 facts that the disewase control rate of PROCLAIM Study<sup>20)</sup> was 70% to 80% and the proportion of  
592 PDof 3 groups in WJTOG0105<sup>21)</sup> was 10% to 13%, etc., the study will be terminated early if the  
593 proportion of PD at the time of immunoradiotherapy completion exceeds 30% (6 subjects or more)  
594 of the 20 analyzed subjects.

595 **2.5. Planned number of registered subjects and research period**

596 Target number of subjects to be registered: 35

597 Study period: From August 15, 2019 to February 28, 2022 (for 2.5 years)

598 Subject registration period: From August 15, 2019 to September 15, 2020 (for 1 year)

599 Follow-up period: 1.5 years from the date of last subject's registration

600

601 Note that early analysis will be performed according to the procedure separately specified to  
602 determine whether or not treatment should be discontinued when 20 subjects complete a  
603 simultaneous combination therapy of radiotherapy and durvalumab. When the proportion of PD at  
604 the end of radiotherapy is observed in 6 subjects (30%) or more, the study will be terminated early.  
605 Registration will not be suspended during the early analysis.

606

607

608 **3. Outline of the study drug**

609 **3.1. Name**

610 1) Investigational Drug

611 Durvalumab

612 2) Nonproprietary name

613 Durvalumab (Genetical Recombination) (JAN) durvalumab (INN)

614 3) Structural formula

615 Glycoprotein is composed of 3 H chains ( $\gamma$  1 chain) which consist of 451 amino  
616 acid residues and 2 L chains ( $\kappa$  chain) which consist of 215 amino acid residues.

617 4) Formula and molecular weight

618 Formula:  $C_{6502}H_{10018}N_{1742}O_{2024}S_{42}$  (protein portion, 4 chains)

619 H-chain:  $C_{2212}H_{3401}N_{589}O_{677}S_{16}$

620 L-chain:  $C_{1039}H_{1612}N_{282}O_{335}S_5$

621 Molecular weight: approximate 149,000 Da

622 5) Dosage form/strength

623 Nonproprietary name: Durvalumab

624 Dosage form/strength: 500mg injection (1 vial 10mL containing 500mg)

625 **3.2. Study drug labeling**

626 The packaging and labeling of the investigational drug is described in the separately established  
627 “Procedure for Control of the Investigational Drug.”

628 **3.3. Storage of the study drug**

629 The investigational drug is stored in a safe place under appropriate storage conditions.  
630 Appropriate storage conditions and transportation conditions are described in the label attached to  
631 the container of the investigational drug, the Investigator’s Brochure, and the Procedure for Control  
632 of the Investigational Drug.

633 **3.4. Procedures for storage and control of the study drug**

634 The investigational drug is provided by the investigational drug supplier for the  
635 sponsor-investigator at each study center at a specified time after submission of a clinical study plan  
636 notification. A specific procedure for providing the investigational drug is stipulated in the  
637 separately established “Procedure for Control of the Investigational Drug.” The sponsor-investigator  
638 explains the contents of the study to the investigational drug controller at the study center, submits  
639 the “Procedure for Control of the Investigational Drug” to the investigational drug controller, and

640 requests for the storage and control of the investigational drug. The investigational drug controller  
641 appropriately stores and controls tablets of the investigational drug and their outer containers during  
642 the study period whether tablets of the investigational drug are used or not and prepares an  
643 investigational drug accountability log to know the usage of the investigational drug. The  
644 sponsor-investigator checks investigational drug control records, remaining tablets, and entries in the  
645 case report forms (CRFs) for consistency, investigates the cause of any inconsistency, and makes  
646 necessary corrections immediately.

647 After completion of the study, the investigational drug controller returns unused tablets of the  
648 investigational drug and empty containers to the sponsor-investigator. When returning them, the  
649 investigational drug controller should make the privacy information of each subject such as subject  
650 name (initials) and medical record ID illegible. If losing unused tablets of the investigational drug or  
651 their empty containers, the investigational drug controller should document what has been lost and  
652 reasons. The sponsor-investigator discards all of the unused tablets of the investigational drug  
653 according to “Procedure for Control of the Investigational Drug” and their empty containers returned  
654 by the investigational drug controller.

655

## 656 **4. Diagnostic criteria and staging**

### 657 **4.1. Diagnostic criteria**

658 Follow the “Classification of Lung Cancer, 8th Edition” for diagnosis of lung cancer.

### 659 **4.2. Staging**

660 TNM Classification (UICC 8th edition) is used for the staging of NSCLC at the first diagnosis.

661

## 662 **5. Eligibility criteria**

### 663 **5.1. Eligibility criteria for the first registration**

664 All the following must be satisfied:

665 [IC]

- 666 1) Patients aged 20 years or older when the informed consent is obtained
- 667 2) Patients providing a written informed consent and willing to comply with the protocol after  
668 he/she receives full explanation of the study details prior to the registration in this study.

669 [Histologic type]

- 670 3) NSCLC diagnosed by histology

671 [Spread of lesions]

- 672 4) Patients presumed to be treatable with definitive radiotherapy at the stage IIIA/IIIB/IIIC based

673 on the Classification of Lung Cancer, 8th Edition or postoperative recurrent disease that is  
674 curable by thoracic radiotherapy.

675 5) Patients with measurable lesions according to the Response Evaluation Criteria in Solid  
676 Tumors (RECIST) ver1.1.

677 [Prior therapy for lung cancer]

678 6) Untreated with chemotherapy

679 7) Postoperative recurrent patients can be registered if there were no adjuvant therapy or 24 weeks  
680 (168 days) have passed since the last date of administration of the postoperative chemotherapy.

681 Patients who received the postoperative radiotherapy are not excluded.

682 [Physical findings and examination]

683 8) 0-1 in ECOG performance status (PS)

684 9) There are no severe disorders in major organs (bone marrow, heart, lung, liver, kidney, etc.),  
685 and the following criteria are satisfied:

686 (Use the latest data for registration among those obtained within 14 days from the registration  
687 date. Based on the registration date, the same day of the week as two weeks before is allowed.)

688 · Neutrophil count  $\geq 1500/\text{mm}^3$

689 · Hemoglobin  $\geq 9.0$  g/dL

690 · Platelet count  $\geq 10 \times 10^4/\text{mm}^3$

691 · AST, ALT  $\leq 100$  IU/L

692 · Total bilirubin  $\leq 2.0$  mg/dL

693 · Creatinine  $\leq 2.0$  mg/dL

694 · Creatinine clearance  $\geq 40$  mL/min (estimated value by the Cockcroft-Gault formula<sup>\*1</sup>)

695 · SpO<sub>2</sub>  $\geq 93\%$  (room air)

696 10) Patients must weigh 30 kg or more.

697 <sup>\*1</sup> When the estimated value of creatinine clearance is less than 40 mL/min, an actual  
698 measurement value is essential and is necessary to confirm by the second registration.

699 [Others]

700 11) Patients expected to survive for at least 12 weeks from the start of treatment.

## 701 **5.2. Eligibility criteria for the second registration**

702 [Stage]

703 1) Patients at stage IIIA/IIIB/IIIC treatable with definitive radiotherapy based on the Classification  
704 of Lung Cancer, 8th Edition or postoperative thoracic recurrence that is curable by  
705 radiotherapy.

706 [PD-L1 expression]



- 707 2) PD-L1 expression of tumor cells accounts for 1% or more (SP263)
- 708 [Radiotherapy]
- 709 3) A radiation oncologist confirms that the irradiation specified in the WJOG 11619L  
710 Radiotherapy Regulations (Addendum) is possible.
- 711 [Others]
- 712 4) Patients can be confirmed to be post-menopausal or have a negative urine or serum pregnancy  
713 test result.
- 714 · Women  $\leq$  50 years of age: Pregnancy test negative. (However, pregnancy test will be  
715 omitted if the patient has undergone bilateral oophorectomy, bilateral salpingectomy, or  
716 hysterectomy.)
  - 717 · Women  $\geq$  50 years of age: Have been amenorrheic for  $\geq$  12 months following cessation of  
718 all exogenous hormonal treatments. If not amenorrheic, a pregnancy test will be  
719 performed. (However, pregnancy test will be omitted if the patient has undergone bilateral  
720 oophorectomy, bilateral salpingectomy, or hysterectomy.)

### 721 **5.3. Exclusion criteria for the second registration**

722 [Multiple cancers]

- 723 1) Active multiple cancers\*<sup>1</sup>

724 \*<sup>1</sup> Multiple cancers refer to homochronous multiple cancers or heterochronous multiple cancers  
725 with a cancer-free period of no more than 3 years. Carcinoma in situ (intraepithelial carcinoma)  
726 or lesions equivalent to intramucosal carcinoma that are deemed to have been cured by local  
727 treatment are not included in active multiple cancers.

728 [Complications/infection]

- 729 2) Patients with active systemic infection. (Including tuberculosis)
- 730 3) Patients with active hepatitis B or active hepatitis C (even if HBs antibody/HCV antibody are  
731 positive, they are eligible if the viral load is below sensitivity and hepatitis not active).

732 [Complications/interstitial pneumonia/autoimmune disease]

- 733 4) Patients with interstitial lung disease evident in CT.
- 734 5) Patients with complicating active autoimmune disease or history of autoimmune disease  
735 requiring steroid therapy or immunosuppressants\*<sup>2</sup>

736 \*<sup>2</sup> Note that the following patients are eligible:

- 737 (1) Patients using a stable dose of thyroid supplement hormone for autoimmune-related  
738 hypothyroidism
- 739 (2) Patients receiving a stable dose of insulin regimen for well-controlled type I diabetes  
740 mellitus

- 741 (3) Patients are eligible when patients with eczema, psoriasis, lichen simplex chronicus or  
742 only dermatologic symptoms of vitiligo satisfy the following:  
743 The rash area accounts for less than 10% of the body surface area (BSA); only  
744 topical-steroid treatment is required; and no acute exacerbation of underlying condition  
745 observed within the past 12 months. Patients are eligible in this study when the dose of  
746 steroids is equivalent to prednisolone 10 mg/day or less.
- 747 6) Patients who need continued systemic (oral or intravenous) administration of steroids  
748 equivalent to prednisolone > 10 mg/day, or who used immunosuppressants within 14 days  
749 before registration for indications other than autoimmune disease<sup>\*3</sup>
- 750 <sup>\*3</sup> However, patients receiving steroids 10 mg/day or less for the following reasons are eligible:
- 751 (1) Patients taking oral steroid equivalent to prednisolone 10 mg/day or less as replacement  
752 therapy for adrenal failure, etc.
- 753 (2) Patients who acutely received steroid equivalent to prednisolone 10 mg/day or less for  
754 COPD
- 755 (3) Patients receiving mineralocorticoid for orthostatic hypotension
- 756 (4) Patients treated with steroids as premedication for hypersensitivity reactions (e.g.  
757 premedication before CT scan) or topical steroids (e.g. nasal cavity, eye, skin)
- 758 [Complications/circulatory organ]
- 759 7) Patients with a history of symptomatic congestive heart failure, unstable angina, or myocardial  
760 infarction within 1 year prior to registration.
- 761 8) Patients with clinically serious arrhythmia detected by ECG (complete left bundle branch block,  
762 third-degree atrioventricular block, second-degree atrioventricular block).
- 763 [Others]
- 764 9) Patients with a history of immunotherapy including immune antibody therapy.
- 765 10) Patients showing morphological differentiation in the nervous system or histologic type  
766 combined with small cell lung cancer and NSCLC.
- 767 11) Patients with a history of serious drug allergy.
- 768 12) Patients with uncontrolled diabetes mellitus despite appropriate treatment.
- 769 13) Pregnant females, lactating females, females who may be pregnant at the moment, or males or  
770 females with reproductive capacities who have no intention of using effective contraception  
771 from screening to 90 days after the last dose of durvalumab monotherapy.
- 772 · Women ≤ 50 years of age: Pregnancy test negative. (However, pregnancy test will be  
773 omitted if the patient has undergone bilateral oophorectomy, bilateral salpingectomy, or  
774 hysterectomy.)
- 775 · Women ≥ 50 years of age: Have been amenorrheic for ≥ 12 months following cessation of  
776 all exogenous hormonal treatments. If not amenorrheic, a pregnancy test will be

777 performed. (However, pregnancy test will be omitted if the patient has undergone bilateral  
778 oophorectomy, bilateral salpingectomy, or hysterectomy.)

779 14) Patients judged to be difficult to be registered for this study due to clinically important mental  
780 illness.

781 15) Patients who may become a blood donor during the study and within 90 days from the last  
782 administration.

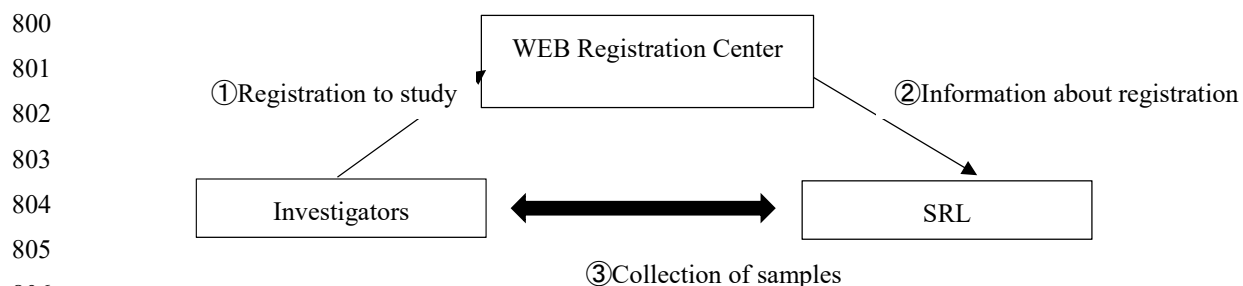
783 16) Patients who received a live vaccine within 30 days before registration. Patients who may  
784 receive a live vaccine during the study and within 30 days from the last administration.

785 17) Other patients judged by the investigator, etc. to be ineligible.

#### 786 **5.4. PD-L1 test (SP263)**

787 As a test kit for immunostaining to measure PD-L1 protein expressed in cancer tissue and cells  
788 in this study, “VENTANA PD-L1 (SP263) Assay” should be used. This assay is based on the  
789 immunohistochemistry (IHC) method as the measurement principle, and detection is carried out  
790 using an automated immunostaining apparatus from Ventana BenchMark series. This SP263 has  
791 been used for examination of the efficacy of durvalumab by PD-L1, including PACIFIC Study. For  
792 specimens involving a PD-L1 test, the following points should be noted:

- 793 · Specimens collected immediately before the first registration should be used wherever possible.
- 794 · Specimens collected from examination performed within a clinical setting, such as  
795 bronchoscopy and CT-guided examination, are acceptable. Note that the collected tissue must  
796 contain at least 100 tumor cells.
- 797 · In patients with postoperative recurrence, specimens collected within 5 years should be used.
- 798 · With the use of formalin-fixed paraffin-embedded tumor tissue samples, 4 coated slides sliced  
799 into 4-5 μm should be submitted to SRL (SRL, Inc.).



## 808 **6. Registration**

### 809 **6.1. Registration procedures**

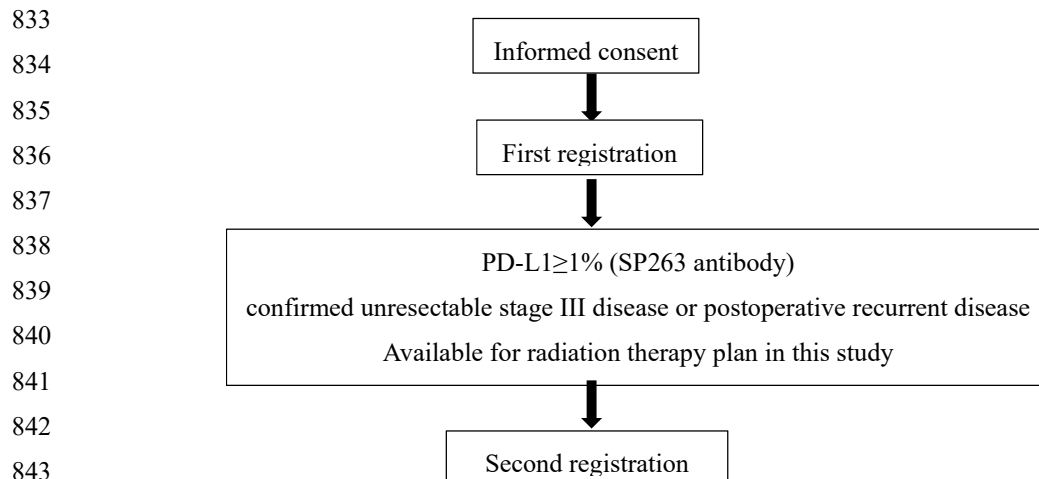
810 1) The investigator or other personnel explains the present study to each candidate subject and

- 811 obtains written consent from the subject.
- 812 2) The investigator or other personnel will log in to the web system for the patient registration.
- 813 After confirming that each subject meets all of the inclusion criteria in “5.1 Eligibility criteria
- 814 for the first registration”, the investigator or other personnel inputs data for the first
- 815 registration and registers the subject via the electronic data capture (EDC) system.
- 816 3) The investigator or other personnel will send the specimens of the first registration to the
- 817 central lab of PD-L1(SP263).
- 818 4) The investigator or other personnel will log in to the Web system. After confirming that each
- 819 subject meets all of the inclusion criteria in “5.2 Eligibility criteria for the second registration”
- 820 and does not conflict with any of the exclusion criteria in “5.3 Exclusion criteria for the
- 821 second registration”, the investigator or other personnel inputs data for the second
- 822 registration and registers the subject.
- 823 5) The investigator or other personnel will confirm the enrollment number in EDC.
- 824 6) The investigator or other personnel will start the protocol treatment.

825

826 Registration using the EDC system:

- 827 • The investigator or other personnel should access to the web registration system for the study
- 828 via the Internet.
- 829 • To enter necessary information in accordance with instructions in the enrollment system to
- 830 make registration.
- 831 • To obtain an enrollment number as a registration result.
- 832 • Registration may be accepted 24 hours excluding time of maintenance.



844 **6.2. Precautions**

- 845 1) Once subjects are registered, their registration will not be cancelled (They will not be deleted

- 846 from the database.).
- 847 2) In the case of double registration, the first registration information (enrollment number) will
- 848 be adopted as a rule.
- 849 3) Error or double registration should be promptly notified if identified.
- 850 4) In principle, safety should be confirmed within 14 days from the day of enrollment (The
- 851 same day of a week is acceptable.), and then the protocol treatment should be initiated.

### 852 **6.3. Contact information regarding registration**

853 Clinical Study Coordinating Secretariat  
854 EPS Corporation  
855 2-23 Shimomiyabicho, Shinjuku-ku, Tokyo 162-0822  
856 <Contact>  
857 7<sup>th</sup> floor KingOsaka Biru 1-7 Toyotsucho, Suita. Osaka 564-0051  
858 TEL : [REDACTED] / FAX: [REDACTED]  
859 e-mai; [prj-dolphin-jimu@eps.co.jp](mailto:prj-dolphin-jimu@eps.co.jp)

860  
861 ●Contact how to register and reception time

862 EDC Data Center  
863 EPS Corporation  
864 1-17-6 Esakacho, Suita. Osaka 564-006  
865 TEL : [REDACTED] / FAX: [REDACTED]  
866 Reception Time: Monday to Friday, 9:00am to 5:00pm (Excluding Saturdays, Sundays, and  
867 holidays, and designated days for the year-end and New Year holiday)

868  
869 ●Contact for inclusion/exclusion criteria in patient registration

870 Motoko Tachihara  
871 Kobe University Hospital  
872 7-5-2, Kusunoki-Cho, Chuo-Ku, Kobe-city, Hyogo 650-0017  
873 FAX: [REDACTED]  
874 TEL: [REDACTED]  
875 e-mail: [mt0318@med.kobe-u.ac.jp](mailto:mt0318@med.kobe-u.ac.jp)

876  
877 ●Contact for radiation therapy  
878 Kayoko Tsujino  
879 Hyogo Cancer Center  
880 13-70 Kiaoji-cho, Akashi-city, Hyogo, JAPAN 673-8558  
881 TEL : [REDACTED] / FAX : [REDACTED]

882 e-mail:tsujinok@gmail.com

883

## 884 7. Protocol treatment plan

### 885 7.1. Treatment details

#### 886 7.1.1. Drugs used

##### 887 Study drug

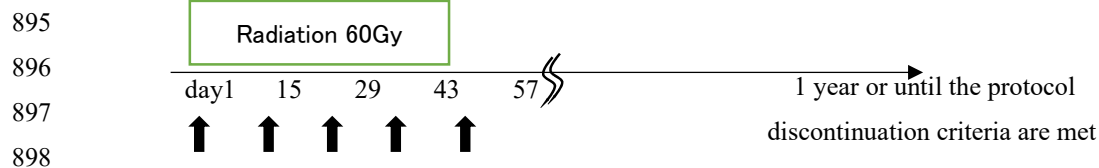
Non-proprietary name	Abbreviated name	Dosage form and strength	Manufacturer
Durvalumab	Durvalumab	500 mg/10 ml	AstraZeneca K. K.

#### 888 7.1.2. Treatment schedule

889 The method of drug administration conforms to 7.4 Precautions on administration. The  
890 protocol for administration schedule shall be complied with.

891 Durvalumab 10 mg/kg will be administered on Day 1 and as 2-week (14-day) cycles for 1 year  
892 or until the protocol discontinuation criteria are met (figure below). Definitive thoracic radiotherapy  
893 will be started on Day 1.

894



899 · In principle, the dose is rounded down to the nearest ten.

900 <Preparation method of the study drug>

901 (1) At preparation

902 1) Durvalumab is supplied in a single-use vial, and does not contain preservatives.

903 2) The designated pharmacist at each site should adjust the dilution of durvalumab in a clean  
904 environment using an aseptic technique.

905 3) Before preparation, visually ensure that there is no foreign insoluble matter or  
906 discoloration. Durvalumab is colorless to pale yellow and clear to opalescent liquid. Do  
907 not use if turbidity, discoloration or foreign insoluble matter is observed.

908 4) Do not shake the vials or stir them vigorously.

909 5) Take out the required amount from the vial and inject into a drip bag that contains  
910 isotonic sodium chloride solution or 5% glucose injection to make a final concentration of  
911 1 to 15 mg/mL. Invert the drip bag slowly for mixing. Do not freeze or shake the diluent.

912 The time from withdrawal from a vial to the start of administration should not exceed the

- 913 following time:
- 914 · Within 24 hours at 2-8°C
- 915 · Start administration within 4 hours if stored at room temperature.
- 916 6) Use immediately after preparation. When storing the diluent without immediately using it,  
917 start administration within 24 hours if stored at 2-8°C and within 4 hours if stored at room  
918 temperature.
- 919 7) Durvalumab is for single use. Do not reuse it.
- 920 8) Discard the residual liquid in the vial.
- 921 (2) At administration
- 922 1) Durvalumab should be intravenously infused for 60 minutes or longer using a sterile low  
923 protein-binding 0.2- or 0.22-µm inline filter (made of polyethersulfone, etc.). If there is an  
924 interruption during the infusion, the total allowable infusion time should not exceed 8  
925 hours at room temperature.
- 926 2) Do not administer other drugs concomitantly using the same drip line.
- 927 3) At the end of the infusion of durvalumab, the IV line should be flushed or the infusion  
928 should be completed according to the site's rules.
- 929 4) Should the preparation time or infusion time exceed the time limit, a new dose should be  
930 diluted from a new vial. Durvalumab does not contain preservatives and any unused  
931 portion should be discarded.
- 932 5) Follow **7.4 Precautions on administration**.

### 933 7.1.3. Radiotherapy

934 The WJOG 11619L Radiotherapy Regulations (Addendum 2) should be followed. The excerpts  
935 of the key points are as follows.

936

- 937 1) Radiotherapy will begin on Day 1, concurrently with the start date of durvalumab. There will  
938 be no specified order or time interval between durvalumab administration and radiotherapy.
- 939 2) For radiotherapy, volume prescription three-dimensional treatment plan/volume prescription (D  
940 95) or intensity modulated radiation therapy (IMRT) may be selected for each subject. IMRT  
941 selection is limited to sites certified by the WJOG Radiation Therapy Board.
- 942 3) Dose fractionation should be 2 Gy per dose, once daily, 5 days per week, a total of 30 doses, a  
943 total dose of 60 Gy, a total treatment period of 42 days, and an allowable total treatment period  
944 of 63 days.
- 945 4) In order to minimize the effect of dose distribution in the body due to enlargement or shrinkage  
946 of tumor during treatment on the therapeutic effect or adverse events, diagnostic CT or  
947 treatment planning CT will be performed at approximately 30-40 Gy has been administered

948 during treatment. If the change is large, re-planning should be done as necessary.

949 5) The evaluation criteria for dose limitation rules are as shown in the table below.

	<b>Compliance - RT</b>	<b>Deviation - RT</b>
<b>Prescribed dose</b>		
PTV D95%	$60 \text{ Gy} \leq \text{D95\%} < 61 \text{ Gy}$	$57 \text{ Gy} \leq \text{D95\%} < 60 \text{ Gy}$ or $61 \text{ Gy} \leq \text{D95\%} \leq 63 \text{ Gy}$
PTV D1%	$\text{D1\%} \leq 72 \text{ Gy}$	$72 \text{ Gy} < \text{D1\%} \leq 75 \text{ Gy}$
PTV D99%	$51 \text{ Gy} \leq \text{D99\%}$	$45 \text{ Gy} \leq \text{D99\%} < 51 \text{ Gy}$
ITV(CTV) D99%	$58 \text{ Gy} \leq \text{D99\%}$	$54 \text{ Gy} \leq \text{D99\%} < 58 \text{ Gy}$
<b>Normal tissue</b>		
Spinal cord	$\text{D0.03 cc} \leq 50 \text{ Gy}$	$50 \text{ Gy} < \text{D0.03 cc} \leq 52 \text{ Gy}$ and $\text{D1 cc} \leq 50 \text{ Gy}$
Lung (whole lung-GTV)	$\text{V20 Gy} \leq 35\%$ and $\text{MLD} \leq 20 \text{ Gy}$ and $\text{V5 Gy} \leq 60\%$	$35\% < \text{V20 Gy}$ or $20 \text{ Gy} < \text{MLD}$ , or $60\% < \text{V5 Gy}$ but $\text{V20 Gy} \leq 40\%$ and $\text{MLD} \leq 22 \text{ Gy}$ $\text{V5 Gy} \leq 65\%$
Esophagus	$\text{D0.03cc} \leq 66 \text{ Gy}$	$66 \text{ Gy} < \text{D0.03cc} \leq 72 \text{ Gy}$
Heart	$\text{V45 Gy} \leq 35\%$	$35\% < \text{V45 Gy} \leq 40\%$
Hot spots outside PTV excluding lung fields	$\text{D0.03cc} \leq 72 \text{ Gy}$	$72 \text{ Gy} < \text{D0.03cc} \leq 75 \text{ Gy}$
Brachial plexus	$\text{D0.03cc} \leq 66 \text{ Gy}$	$66 \text{ Gy} < \text{D0.03cc} \leq 70 \text{ Gy}$

950 7.1.4. Start of treatment

951 Start the protocol treatment within 14 days after the second registration. If protocol treatment  
952 was started after 15 days, the reason should be reported.

953 “7.3.1. Administration criteria for each course” is not available for the start of Course 1.

954 7.1.5. Discontinuation prior to treatment

955 If it is determined that the protocol treatment cannot be started for some reasons (for example,  
956 progression before treatment but after registration [rapid progression prevents the start of the  
957 protocol treatment], or the treatment is changed after ineligibility is found due to a change in  
958 pathological diagnosis after registration), the case should be handled as a discontinued case prior to



959 the protocol treatment.

960

## 961 **7.2. Discontinuation of protocol treatment**

962 If any of the following is satisfied, discontinue the protocol treatment.

963 1) When the protocol treatment is judged to be ineffective

964 However, a subject may continue the treatment as long as the following criteria are met based  
965 on RECIST 1.1 even after the first PD was confirmed. If further progression is noted in the  
966 subject by subsequent specified CT assessment, the treatment should be discontinued.

967 · In the opinion of the investigator, clinical response is achieved and no rapid disease  
968 progression is observed.

969 · Toxicity is tolerable

970 · General condition is stable

971 · Continuous treatment beyond progression will not delay urgent intervention required to  
972 prevent serious complications due to disease progression

973 2) When the protocol treatment cannot be continued due to adverse events

974 (i) When grade 4 non-hematologic toxicity is observed

975 Note that the following adverse reaction (hematologic toxicity) in CTCAE v5.0 is  
976 excluded:

977 “Anemia”; “bone marrow hypocellular”; “lymphocyte count decreased”; “neutrophil  
978 count decreased”; “white blood cell count decreased”; and “platelet count decreased”.

979 Treatment discontinuation is not required in a case where biochemical tests show just  
980 temporary development of a grade 4 event which does not require any treatment or is not  
981 assessed as life-threatening.

982 (ii) When grade 3 or higher interstitial lung disease/pneumonitis occurs

983 (iii) When adverse events cannot be controlled even after hormone replacement therapy or  
984 insulin replacement therapy

985 (iv) When subjects satisfy the provisions on discontinuation of the protocol treatment in “7.3.  
986 Administration criteria for each course and treatment change criteria”

987 (v) When the principal (sub) investigator, etc. determines that subjects need to discontinue  
988 the protocol treatment in terms of safety due to reasons other than treatment change  
989 criteria

990 3) When subjects wish to discontinue the protocol treatment

991 (i) When subjects wish to discontinue treatment because the causality with an adverse event  
992 cannot be ruled out

993 (ii) When subjects wish to discontinue treatment because the causality with an adverse event

- 994 can be ruled out
- 995 \* When patients reject the participation prior to the protocol treatment and after  
996 registration
- 997 \* When the causality with an adverse event can be ruled out, such as subjects or their  
998 family's moving during the protocol treatment
- 999 (iii) When subjects withdraw their consent
- 1000 4) When subject die during the protocol treatment
- 1001 5) When ineligibility is found during the protocol treatment period and it is determined that  
1002 continuing the protocol treatment will not be beneficial to subjects
- 1003 6) When the subject is transferred to another hospital during the protocol treatment period and it is  
1004 determined that the protocol treatment cannot be continued
- 1005
- 1006 \* The protocol treatment discontinuation date shall be the date of death if subjects die during the  
1007 protocol treatment, or otherwise be the date when the attending physician determined to  
1008 discontinue the protocol treatment.

1009 7.2.1. Definition of protocol treatment completion

1010 This study is designed to continue the protocol treatment for 1 year or until the protocol  
1011 treatment discontinuation criteria are met. Therefore, if the administration successfully continues for  
1012 one year, it will be regarded as protocol treatment completion.

1013 7.2.2. Attention on withdrawal of consent

1014 Data following withdrawal of consent shall not be collected. (It is impossible to collect data  
1015 after withdrawal of consent.) Ensure to check patients' will to find out whether it is refusal of the  
1016 protocol treatment/tests or true withdrawal of consent.

1017 **7.3. Administration criteria for each course and treatment change criteria**

1018 Discontinuation, interruption and suspension of administration shall be based on adverse events,  
1019 and change in doses be based on adverse reactions. Terms used for administration criteria and  
1020 treatment change criteria are as follows:

1021 Discontinuation: premature termination of a part of or all treatment that is not resumed

1022 Interruption/suspension: a temporary halt of treatment that can be resumed

1023 7.3.1. Administration criteria for each course

1024 The start date of the second and subsequent courses can be allowed within +7 days (until the  
1025 same day of the week that the administration is scheduled to be started).

1026 Administration the second and subsequent courses shall be started after it is confirmed that the  
 1027 following criteria are met within 3 days before administration of the course. When administration is  
 1028 postponed, set the start date to day 1 of the course and administration and subsequent schedules will  
 1029 follow this. (Imaging schedule will no change.)  
 1030

Item	Administration criteria
PS	0-1
Pyrexia	<38°C
Immune-related adverse events** (other than brain, skin or hyperglycemia)	≤ Grade 1
Hyperglycemia*/skin disorders***	≤ Grade 2
Pneumonitis	≤ Grade 1
Meningoencephalitis	Grade 0

1031 \* Case that insulin is used due to hyperglycemia which is occurred as an adverse event. If patients  
 1032 have diabetes as a complication and insulin is used, this case is not available. The restart of  
 1033 Durvalumab is possible in case that blood sugar level is stable with an appropriate treatment even if  
 1034 hyperglycemia of grade 3 is observed.

1035 \*\* Hypothyroidism which are stable due to hormone replacement, adrenal dysfunction or pituitary  
 1036 insufficiency which are dosed prednisolone equivalent 10mg / day or less, and endocrine disorders  
 1037 which are stable with symptomatic treatment such as hyperthyroidism can be administered.

1038 \*\*\* If grade 2 of skin disorder persists for 1-2 weeks, administration should be started after  
 1039 recovery to grade 1.

1040 · Other; If the attending physician considers necessary due to adverse events other than the  
 1041 above, the extension is allowed (the reason shall be provided in the CRF)

1042 · Durvalumab can be suspended for up to 90 days from the last administration. Durvalumab shall  
 1043 be discontinued if drug suspension is needed for more than 90 days. Note that holidays that  
 1044 may cause a delay in this limit will not be counted.

1045 · In this study, Addendum “Dosing Modification and Toxicity Management Guidelines (TMGs)  
 1046 for Durvalumab Monotherapy, Durvalumab in Combination with other Products, or  
 1047 Tremelimumab Monotherapy” (hereinafter referred to as “Toxicity Management Guidelines for  
 1048 Durvalumab”) should be followed for management of adverse events associated with  
 1049 durvalumab.

1050 · When systemic steroid is administered for each immune-related adverse event, and when the  
 1051 immune-related adverse event improves/resolves under the dose equivalent to prednisolone 10  
 1052 mg/day or less within 90 days after the start, of predonisolone the treatment can be resumed if  
 1053 the administration criteria for each course are met.

1054 7.3.2. Dose reduction criteria of the second and subsequent courses

1055 The dose of durvalumab should be 10 mg/kg, and the drug should be used at the same dose  
1056 throughout the study.

1057 The dose will not be recalculated due to a change in body weight, etc.

1058 The dose of durvalumab shall not be reduced due to adverse events.

1059 7.3.3. Discontinuation criteria of durvalumab of the second and subsequent courses

1060 1) When the administration criteria of durvalumab for each course in section 7.3.1. are not met  
1061 even for the 90-day suspension period after actions are taken according to “Toxicity  
1062 Management Guidelines for Durvalumab”

1063 2) When the following adverse events are observed:

Item	discontinuation criteria
Immune-related adverse events Lungs (pneumonia, interstitial lung disease (ILD)) Kidney (nephritis, renal dysfunction) Heart (myocarditis, etc.)	≥ Grade 3
Immune-related adverse events Diarrhea / colitis Skin disorders (including rash, dermatitis, and pemphigoid) Muscle disorders (myositis / polymyositis, etc.)	Grade 4
Neurological disorders (including non-infectious meningitis, non-infectious encephalitis, autonomic neuropathy)	≥ Grade 3
Peripheral neuromotor syndrome (Guillain-Barré syndrome, myasthenia gravis, etc.)	Grade 4
Stevens-Johnson Syndrome (SJS), Toxic Epidermal Necrolysis (TEN), Other Severe Skin Disorders (SCAR)	In definitive diagnosis
Intestinal perforation	Any Grade
Liver dysfunction / hepatitis	1) Grade 4 2) If any of the following is met • AST>8×ULN, • ALT>8×ULN • T-bil>5×ULN  3) Hy’s law,

	AST or ALT >3×ULN T-bil>2×ULN There is no cause other than the study drug
Acute pancreatitis	≥ Grade 3
Transverse myelitis	Any Grade
Allergic reaction (Infusion-Related Reactions)	≥ Grade 3

1064 Refer and follow the latest version of “Toxicity Management Guidelines for Durvalumab”  
1065 (Addendum).

1066

1067 3) When the investigator, etc. considers that subjects need to discontinue the study.

1068 7.3.4. Criteria for suspension/resumption of radiotherapy

1069 The WJOG 11619L Radiotherapy Regulations (Addendum 2) should be followed. The excerpts  
1070 of the key points are as follows.

Adverse event	Radiotherapy suspension criteria (Any of the following)	Radiotherapy Resumption criteria (All of the following)
Neutrophil count	< 500/mm <sup>3</sup> (Grade 4)	≥ 500/mm <sup>3</sup> (≤ Grade 3)
Platelet count	< 2.5 × 10 <sup>4</sup> /mm <sup>3</sup> (Grade 4)	≥ 2.5 × 10 <sup>4</sup> /mm <sup>3</sup> (≤ Grade 3)
Pyrexia	≥ Grade 1 Pyrexia of ≥ 38.0°C (axillary temperature)	Temperature declined to ≤ 37.0°C
Pneumonitis	When signs of grade 2 or higher pneumonitis are noted. When grade 1 pneumonitis spread outside the radiation field is observed, an internal medicine specialist and the physician in charge of radiotherapy should discuss and decide whether to interrupt the treatment.	Before resumption, the internal medicine specialist and the physician in charge of radiotherapy should have a careful discussion. The administration should be resumed only if it is judged possible.
Esophagitis	Grade 3	≤ Grade 2

	(Severely impaired eating/swallowing function; Tube feeding/TPN/hospitalization required)	(Symptomatic impaired eating/swallowing function; oral nutritional support required)
Radiation dermatitis	Grade 3 (Moist desquamation in areas other than folds; bleeding due to mild trauma or friction)	≤ Grade 2 (Moderate to severe erythema; patchy moist desquamation. however, limited to most folds; moderate edema)
Febrile neutropenia	Grade 3	Grade 0
Infection*	Grade 3	Grade 0

1071 In addition to the criteria above, radiotherapy should be suspended if the investigator considers it  
1072 necessary to suspension and the reason is recorded in CRFs. Radiotherapy can resume according to  
1073 investigator decision..

#### 1074 **7.4. Precautions on administration**

1075 · The dose of durvalumab should be 10 mg/kg, and the drug should be used at the same dose  
1076 throughout the study.

1077

##### 1078 First administration

1079 · Dissolve durvalumab in isotonic sodium chloride solution or 5% glucose injection 100-250 mL  
1080 and administer over 60 minutes.

1081 · Even if there is an interruption during the infusion, the total allowable infusion time should not  
1082 exceed 8 hours at room temperature.

1083 · The first administration should be conducted with full attention paid to infusion reaction.

1084 · At the first administration, premedication of antihistamine is not provided.

1085 · Monitor the subject for signs and symptoms of infusion reactions (chills, rash, flushing,  
1086 shortness of breath, dizziness, pyrexia, etc.) and signs and symptoms of anaphylaxis  
1087 (generalized urticaria, angioedema, wheezing, hypotension, tachycardia, etc.) during infusion.

1088 · If any sign of grade 2 or lower infusion reactions or anaphylaxis is observed, reduce the  
1089 infusion rate by about half or interrupt the infusion until the symptoms improve. If the  
1090 symptoms improve, resume the infusion at 50% and complete the infusion.

1091 · When infusion reaction is noted, symptomatic therapy with acetaminophen, ibuprofen,  
1092 diphenhydramine, famotidine or other H2-receptor antagonists, etc. may be performed  
1093 according to the standard medical procedure.

1094 · The study treatment should be discontinued in case of grade 3 or higher infusion reaction.

1095 Symptomatic therapy with epinephrine, diphenhydramine, steroid, etc. should be performed  
1096 according to the standard medical procedure.

1097

1098 Second administration and thereafter

1099 · Subjects who experienced infusion reaction at the first administration will receive  
1100 premedication of antihistamine at the discretion of the principal (sub) investigator at the second  
1101 administration and thereafter.

1102 · Subjects who did not experience infusion reaction shall not receive premedication.

1103 · In the same manner as the first dose, dissolve durvalumab in isotonic sodium chloride solution  
1104 or 5% glucose injection 100-250 mL and 0.9% saline, and administer over 60 minutes. If there  
1105 is an interruption during the infusion for some reason, the total allowable infusion time should  
1106 not exceed 8 hours at room temperature.

1107 **7.5. Adverse events and management**

1108 For adverse events caused by durvalumab and their management, follow “Toxicity  
1109 Management Guidelines for Durvalumab” (Addendum).

1110 **7.6. Combination therapy/supportive therapy**

1111 A CRF shall include the names of every combination drug/therapy provided to the subject  
1112 during the period specified in “7.6.1. Observation period of combination therapy” with the reasons  
1113 for concomitant use.

1114 7.6.1. Observation period of combination therapy

1115 The observation period of combination drug/therapy shall be from the first administration date  
1116 to 14 days after the last administration of the study drug. It shall be until the first administration date  
1117 of post treatment if the post treatment for NSCLC is started within 14 days after the last  
1118 administration of the study drug.

1119 7.6.2. Prohibited combination drugs

1120 The following drugs and therapy are prohibited from the registration date to the end or  
1121 discontinuation of the protocol treatment:

1122 1) Anti-tumor treatment

1123 (1) Chemotherapy (including molecular target drugs)

1124 (2) Other immunotherapy

1125 (3) Surgical treatment

1126 (4) Others (including hormone therapy)

- 1127 2) Prophylactic administration to prevent the occurrence of adverse events (the prophylactic  
1128 administration to prevent recurrence of observed adverse events is acceptable)
- 1129 3) Other study drugs and unapproved drugs
- 1130 4) Live vaccine
- 1131 \* Consult with coordinating investigator whether or not it is use herbs and drugs that may have  
1132 immunomodulatory activity in natural remedies.

1133 7.6.3. Acceptable supportive therapies

1134 Concomitant use of the drugs or therapy that does not affect the efficacy assessment including  
1135 the drugs or therapy below is allowed.

- 1136 1) G-CSF drug
- 1137 Administer each G-CSF drug according to the indications, dosage and administration, and  
1138 precautions in the package insert of the drug.
- 1139 2) Antibiotics
- 1140 If grade 3 or higher leukopenia or neutropenia is accompanied with pyrexia of 38.0°C or higher,  
1141 or if some sort of infection is suspected, administer an appropriate antibiotic.
- 1142 3) Transfusion
- 1143 If grade 3 or higher hemoglobin decreased or grade 4 platelets decreased is observed,  
1144 transfusion is allowed.
- 1145 4) Steroids
- 1146 Steroids may be used for adverse events, etc. as needed.
- 1147 5) Tests and supportive therapy for subjects with HBs-antigen negative and HBc-antibody  
1148 positive and/or HBs-antibody positive
- 1149 6) Hormones
- 1150 Hormone replacement therapy (e.g. hypothyroidism)
- 1151 7) Inactivated vaccine
- 1152 8) Symptomatic therapy or other drugs considered to be necessary to improve subjects' conditions  
1153 should be administered according to the instruction by the investigator, etc.

1154

1155 Symptomatic therapy with acetaminophen, ibuprofen, diphenhydramine, famotidine and other  
1156 H2-receptor antagonists, etc. may be administered to subjects who experienced infusion reaction  
1157 according to the standard medical procedure. Clinically-indicated supportive therapies (supplemental  
1158 oxygen,  $\beta_2$  adrenergic agonists, etc.) should be used to treat serious infusion reactions (dyspnea,  
1159 hypotension, wheezing, bronchospasm, tachycardia, oxygen saturation decreased, respiratory  
1160 distress, etc.).



1161 7.6.4. Prohibited actions

1162 The following actions are prohibited during treatment and within 90 days after the last dose.

1163 1) Transfusion donor

1164 2) Sexual intercourse without contraception

1165 \* Highly effective methods of contraception (failure rate < 1%) used in Japan are as follows:

1166 · OC (low-dose oral contraceptives)

1167 · IUS (intrauterine system)

1168 · Copper IUD (intrauterine device)

1169 · Surgical sterilization

1170 **7.7. Post treatment**

1171 In principle, after the completion of the protocol treatment, treatment for the underlying disease  
1172 should not be performed until worsening of the underlying disease is confirmed. Progression after  
1173 completion of the protocol treatment and post-treatment after discontinuation of the protocol  
1174 treatment are not specified.

1175

1176 **8. Endpoints and laboratory tests**

1177 8.1.1. Tests and endpoints before the first registration

1178 1) Patient basic information

1179 a) Patient identification code

1180 b) Initials (can be substituted by “\* [asterisk]”)

1181 c) Date of birth (can be substituted by “\* [asterisk]”)/age

1182 d) Informed consent acquisition date

1183 e) Sex

1184 f) PS

1185 g) Height/body weight

1186 h) Histologic type (adenocarcinoma, squamous carcinoma, large cell carcinoma, other)

1187 i) Diagnosis method (histology, confirmed diagnosis date)

1188 2) Tests to be conducted within 14 days before the first registration

1189 (1) Hematology: white blood cells, neutrophils, lymphocytes, hemoglobin, platelets

1190 (2) Blood biochemistry: Alb, T-bil, AST, ALT,  $\gamma$ GTP, ALP, BUN, Cr, Na, K, Cl

1191 (3) Urinalysis: urine protein, urine sugar

1192 (4) Percutaneous oxygen saturation (SpO<sub>2</sub>)

1193 8.1.2. Tests and endpoints before the second registration

1194 Tests and evaluations from 1) to 6) will take place before the second registration. Of note, if a  
1195 subject has the results of tests carried out within the specified period, the test results prior to  
1196 informed consent are allowed to be used, if the subject agrees to it. The same tests do not have to be  
1197 carried out after the informed consent is obtained.

1198

1199 1) Patient basic information

1200 a) Main medical history (If there is a history of malignant tumor, provide the last treatment  
1201 date and the treatment details)

1202 b) Major complications

1203 c) Stage (including primary or recurrence)

1204 d) Target lesion, non-target lesion

1205 e) Smoking history (none [100 cigarettes or less in lifetime], ex-smoker [100 cigarettes or  
1206 more in lifetime but quit smoking at least 1 year before registration], current smoker  
1207 [currently smoking 100 cigarettes or more in lifetime (including cessation of smoking  
1208 within 1 year before registration)])

1209 f) Presence or absence of gene mutation (EGFR gene test)

1210 \* Although ALK gene test, ROS1 gene test, and BRAF (V600E) mutation test are not  
1211 essential, it is desirable to have them conducted as much as possible in routine  
1212 medical practices.

1213 2) Tests to be conducted before the second registration (at any time period)

1214 HBs antigen, HBc antibody, HBs antibody, HCV antibody

1215 3) Tests to be conducted within 3 months (within 92 days at a maximum) before the second  
1216 registration

1217 a) 12-lead electrocardiogram at rest

1218 b) Diabetes test, thyroid function test, adrenal gland/pituitary gland function test: (fasting  
1219 blood glucose, HbA1c, TSH, FT3 or FT4, ACTH)

1220 c) Anti-nuclear antibody, rheumatoid factor (RA), KL-6

1221 4) Tests to be conducted within 4 weeks before the second registration (the same day of the week  
1222 as the registration day is acceptable)

1223 a) Chest x-ray (front)

1224 b) Thoracic and abdominal CT (slice thickness of 5 mm or less): Plain CT is allowed when  
1225 contrast agents cannot be used due to contrast-agent allergy, renal disorder, etc.

1226 c) Brain CT or brain MRI (slice thickness of 5 mm or less): Plain MRI or CT is allowed  
1227 when contrast agents cannot be used due to contrast-agent allergy, renal disorder, etc.

1228 d) Laboratory tests

- 1229 (i) Alb, AMY, lipase, CRP
- 1230 (ii) Urinalysis: urine protein, urine sugar
- 1231 (iii) Urine or serum pregnancy test result (premenopausal women; see "5.2. Eligibility
- 1232 criteria for the second registration")
- 1233 (iv) Blood pressure
- 1234 5) Tests to be conducted within 6 weeks before the second registration (the same day of the week
- 1235 as the registration day is acceptable)
- 1236 PET-CT test
- 1237 6) Observation and tests to be conducted within 14 days before the second registration
- 1238 a) Subjective/objective symptoms
- 1239 Nausea, vomiting, allergic reaction
- 1240 General disorders: pyrexia, fatigue
- 1241 Skin and subcutaneous tissue disorders: pruritus, leukoderma, alopecia
- 1242 Gastrointestinal disorders: constipation, diarrhea, nausea, vomiting, mucositis oral
- 1243 Metabolism and nutrition disorders: inappetence
- 1244 Vascular disorders: hypertension, thromboembolism
- 1245 Respiratory, thoracic and mediastinal disorders: bronchopulmonary hemorrhage, epistaxis,
- 1246 pneumonitis

1247 **8.2. Tests and endpoints during protocol treatment period**

1248 Test results and clinical findings after treatment start should be reported 14 days after the last  
 1249 day of the protocol treatment. If post treatment is started within 14 days, information before the start  
 1250 of post treatment should be reported.

1251 However, with regard to the efficacy endpoints, as an increased frequency may cause a bias in  
 1252 the efficacy evaluation, the evaluation should be made at the specified frequency except when  
 1253 progression is suspected.

1254 8.2.1. Safety endpoints

1255 Evaluate the following items at the start of the course or within 3 days before the start. Tests  
 1256 will be performed according to routine clinical practice while dosing is delayed because the  
 1257 administration criteria for durvalumab are not met.

- 1258 a) PS
- 1259 b) Subjective/objective symptoms and physical findings (described in CTCAE v5.0 -JCOG)
  - 1260 · Blood and lymphatic system disorders: febrile neutropenia
  - 1261 · General disorders and administration site conditions: pyrexia, fatigue, edema extremities
  - 1262 · Skin and subcutaneous tissue disorders: alopecia, other (skin eruption)

- 1263 · Gastrointestinal disorders: diarrhea, nausea, vomiting, mucositis oral
- 1264 · Metabolism and nutrition disorders: inappetence
- 1265 · Nervous system disorders: peripheral sensory neuropathy
- 1266 · Respiratory, thoracic and mediastinal disorders: pneumonitis, epistaxis,
- 1267 bronchopulmonary hemorrhage
- 1268 · Infections and infestations: bronchial infection, lung infection, upper respiratory tract
- 1269 infection, bladder infection, mediastinal infection, pleural infection, wound infection,
- 1270 urinary tract infection
- 1271 c) Laboratory tests
- 1272 Hematology: white blood cells, neutrophils, lymphocytes, hemoglobin, platelets
- 1273 Blood biochemistry: Alb, T-bil, AST, ALT,  $\gamma$ GTP, BUN, Cr, Na, K, Cl, CRP, AMY, lipase
- 1274 Urinalysis: urine protein, urine sugar
- 1275 Blood pressure
- 1276 Percutaneous oxygen saturation (SpO<sub>2</sub>)

#### 1277 8.2.2. Efficacy endpoint

1278 The following image tests are performed in the same way as baseline evaluation. For  
 1279 evaluation, thoracic and abdominal CT is conducted once every 8 weeks ( $\pm 1$  week) with the second  
 1280 registration date as the starting point. Plain CT evaluation is allowed when contrast agents cannot be  
 1281 used. Of note, for bone lesions, bone scintigraphy and PET, etc. are performed only when  
 1282 progression is suspected. Bone scintigraphy and PET as image test for efficacy evaluation are not  
 1283 performed except when progression is suspected. If the protocol treatment is discontinued for some  
 1284 reasons other than disease progression, the efficacy evaluation will be performed in the above period  
 1285 as much as possible.

- 1286 1) Thoracic-upper abdominal CT (slice thickness of 5 mm or less): contrast CT is desirable
- 1287 2) Brain contrast MRI or brain contrast CT (to be conducted when metastasis is suspected;  
 1288 otherwise in accordance with routine medical practice)
- 1289 3) Bone scintigraphy or PET (only when progression is suspected)

### 1290 **8.3. Tests and endpoints after completion of study treatment**

#### 1291 8.3.1. Safety assessment after treatment completion

- 1292 1) Laboratory tests
- 1293 They are not particularly specified, and are conducted based on routine medical practice.

#### 1294 8.3.2. Efficacy assessment after treatment completion

- 1295 1) Progression information (thoracic and abdominal CT assessments to be performed every 8

- 1296 weeks)
- 1297 · Date of progression, site of progression, diagnosis method
- 1298 · For subjects who completed the protocol treatment without progression of the underlying
- 1299 disease (PD), the presence or absence of progression (date and site of exacerbation)
- 1300 should be investigated.
- 1301 · If a subject meets the criteria in 7.2.1) and continues to receive the treatment after the first
- 1302 PD has been confirmed, the date of the second PD diagnosis should be investigated.
- 1303 2) Survival information
- 1304 The last confirmation date, survival status, date and cause of death (in case of death)
- 1305 3) Presence/absence of post treatment (surgery/radiotherapy/drug name/treatment start date/PS at
- 1306 treatment start)
- 1307 Subjects who received post treatment will continue the subsequent treatment course as much as
- 1308 possible.

1309 **8.4. Study calendar**

	Before the first registration	Before the second registration	Each course (Once every 2 weeks)	At discontinuation/ progression	Follow-up
Informed consent acquisition	●				
Patient characteristics	●				
General laboratory tests	● <sup>14</sup>	●	●	○	○
Test for diabetes/ thyroid/adrenal functions		● <sup>92</sup>	○		
Anti-nuclear antibody/RA/KL-6		● <sup>92</sup>			
PS	●		●	●	○
Physical findings (Medical examination)/PS		● <sup>14</sup>	●	●	
Subjective symptoms		● <sup>14</sup>	●	●	○
Chest X-P		● <sup>28</sup>	○	○	
Thoracic and abdominal CT		● <sup>28</sup>	● Every 8 weeks		○*
FDG-PET		● <sup>42</sup>	○		
Bone scintigraphy		○	○		
Brain MRI or CT		● <sup>28</sup>	○		○*
SpO2 measurement	● <sup>14</sup>		●	○	○
Blood pressure		● <sup>28</sup>	●	○	○

Electrocardiogram		● <sup>92</sup>			
SP263		●			
Treatment plan according to the radiotherapy regulations		●			

●: Required

●<sup>XX</sup>: Implemented within XX days before registration

○: Based on routine medical practice

1310 \* If subjects discontinue for some reasons other than cancer progression, continue on the same  
1311 schedule even after the study drug is discontinued.

1312

## 1313 9. Data collection

### 1314 9.1. Enrollment number

1315 Enrollment numbers assigned at the time of enrollment should be used for identifying  
1316 the subjects.

### 1317 9.2. CRF

#### 1318 9.2.1. Types of CRFs

1319 In this study, a system (EDC) to electronically prepare CRFs will be used, and CRFs will be  
1320 electronically recorded.

- 1321 1) Enrollment and baseline records
- 1322 2) Treatment records
- 1323 3) Laboratory tests
- 1324 4) Clinical findings
- 1325 5) Concomitant therapies and supportive therapies
- 1326 6) Report of treatment completion
- 1327 7) Imaging test records
- 1328 8) Follow-up investigation

#### 1329 9.2.2. Completion of CRFs

##### 1330 Preparation of the CRF using the EDC system

- 1331 1) The sponsor-investigator (investigator) and other relevant persons should use the EDC  
1332 system and enter data in the CRF.
- 1333 2) The investigator should ensure that CRFs to be submitted are accurate, complete and sent in a  
1334 timely manner, and that enrollment numbers are utilized for identifying the subjects.

1335 3) Data contained in the CRF, which are based on source documents, shall be consistent with  
1336 the source documents. If there is any inconsistency with source documents, the  
1337 investigator/subinvestigator should prepare a record describing its reason, submit it to the  
1338 coordinating investigator and keep its copy. If there is any change or modification in the  
1339 record on the CRF, the investigator/subinvestigator should make the change or modification  
1340 in accordance with a manual. Changes or modifications shall be made in such a way to keep  
1341 the originally documented information legible.

### 1342 **9.3. Collection method of CRF**

1343 CRFs will be collected by sending them through the EDC system. Timing for their submission  
1344 will be in accordance with separately specified “EDC input guidelines.”  
1345

## 1346 **10. Handling regarding safety**

### 1347 **10.1. Definition of adverse events**

1348 An adverse event is an unfavorable medical event occurring during and after administration of  
1349 a pharmaceutical product or deterioration of symptoms and signs from before administration, and  
1350 refers to any event, irrespective of having a causal relationship with administration of the  
1351 pharmaceutical product or not. Unfavorable medical events refer to abnormalities of symptoms (e.g.,  
1352 nausea, chest pain), signs (e.g., tachycardia, hepatomegaly) or test results (e.g., laboratory values,  
1353 electrocardiogram). In this study, adverse events refer to unfavorable medical events that occur  
1354 during the study including observation or wash-out period after the start of the study treatment.

### 1355 **10.2. Definition of serious adverse events**

1356 A serious adverse event meets one or more of the following criteria regardless of the  
1357 administered dose of an investigational drug.

- 1358 · Results in death
- 1359 · Is life-threatening
- 1360 · Requires inpatient hospitalization or causes prolongation of existing hospitalization
- 1361 · Results in persistent or significant disability/incapacity
- 1362 · May have caused a congenital anomaly/birth defect, spontaneous abortion
- 1363 · Is an important medical event that may jeopardize the subject or may require medical  
1364 intervention to prevent one of the outcomes listed above

1365  
1366 Important medical events that do not result in immediate life-threatening or death, hospitalization,  
1367 disability, or dysfunction but may endanger the patient, or the events which medical treatment has

1368 been taken to avoid reaching the condition defined as "serious adverse event" their outcomes are  
1369 "serious adverse events" are necessary to judge whether to make them serious based on medical and  
1370 scientific grounds. Examples of medically significant events are allergic bronchospasm requiring  
1371 intensive care in the emergency room or at home, non-hospitalization of blood disorders or  
1372 convulsions, drug addiction or substance abuse.

1373 Adverse Events (AEs) for new malignant tumours reported during a study should generally be  
1374 assessed as Serious AEs. If no other seriousness criteria apply, the 'Important Medical Event'  
1375 criterion should be used. In certain situations, however, medical judgement on an individual event  
1376 basis should be applied to clarify that the malignant tumour event should be assessed and reported as  
1377 a Non-Serious AE. For example, if the tumour is included as medical history, and progression occurs  
1378 during the study, but the progression does not change treatment and/or prognosis of the malignant  
1379 tumour, the AE may not fulfill the attributes for being assessed as Serious, although reporting of the  
1380 progression of the malignant tumor as an AE is valid and should occur. Also, some types of  
1381 malignant tumours, which do not spread remotely after a routine treatment that does not require  
1382 hospitalization, may be assessed as Non-Serious; examples include Stage 1 basal cell carcinoma and  
1383 Stage 1A1 cervical cancer removed via cone biopsy

1384 The above explanation applies only if the malignant tumor event observed is a new malignant  
1385 tumor (ie, it is not a tumor treated with the study and not metastasis. Malignant tumors undergoing  
1386 transformation (such as Richter's syndrome, in which B-cell chronic lymphocytic leukemia  
1387 transforms into diffuse large B-cell lymphoma), rarely part of normal progression, are not considered  
1388 as new malignant tumor.

1389 Progression of the cancer targeted in this study, including signs and symptoms, is not  
1390 considered a serious adverse event. Hospitalization due to signs and symptoms of disease  
1391 progression should not be reported as a serious adverse event. These events will be documented in  
1392 the medical chart as disease progression events (e.g. hospitalization for aggravation of the  
1393 underlying disease).

### 1394 **10.3. Adverse events assessed as other medically important conditions**

1395 Other significant adverse events will be classified as "adverse events of special interest  
1396 (AESIs)" if they are of particular clinical significance, other than serious adverse events and adverse  
1397 events resulting in subjects' discontinuation from the study treatment. This AESI includes both  
1398 serious and non-serious events.

1399 "Adverse events of special interest (AESIs)" caused by durvalumab include the following  
1400 adverse events:

1401

- 1402 • Diarrhea / colitis, intestinal perforation



- 1403 • Pneumonitis / ILD
- 1404 • Hepatitis / transaminase elevation
- 1405 • Endocrine disorders (ie, hypophysitis / hypopituitarism, adrenal insufficiency, hyperthyroidism,
- 1406       hypothyroidism, and type 1 diabetes)
- 1407 • Rash / dermatitis
- 1408 • Nephritis / increased blood creatinine
- 1409 • Pancreatitis / serum lipase and amylase increase
- 1410 • Myocarditis
- 1411 • Myositis / polymyositis
- 1412 • Immune thrombocytopenia
- 1413 • Neuropathy / neuromuscular toxicity (Guillain-Barré syndrome, myasthenia gravis, etc.)
- 1414 • There are other rare / infrequently occurring inflammatory reactions (pericarditis, sarcoidosis,
- 1415       uveitis, and eye, skin, blood system, and rheumatism-related events, etc. that may be
- 1416       immune-mediated causes, etc. Not limited to these).
- 1417 • Reactions associated with infusion due to various pharmacological causes and hypersensitivity /
- 1418       anaphylactic reactions are also considered to be particularly noteworthy adverse events.

1419

1420       For details of adverse events caused by durvalumab and their management, refer to and follow  
 1421 attached “Toxicity Management Guidelines for Durvalumab” (Addendum).

1422 **10.4. Assessment of adverse events**

1423       Adverse events should be assessed according to “NCI-CTCAE version 5.0, Common  
 1424 Terminology Criteria for Adverse Events V5.0, Japanese translation JCOG version (CTCAE v5.0  
 1425 -JCOG)”. For laboratory test values, the common reference range of JCOG should be used. In  
 1426 grading an adverse event, select the grade closest to the definition contents of each grade. For  
 1427 consideration of the causal relationship between adverse events seen regarding treatment-related  
 1428 deaths and deaths, report on the adverse events and input into EDC.

1429 **10.5. Determination of causality**

1430       The investigator, etc. must assess the causal relationship between the study drug and an adverse  
 1431 event and answer “Yes” or “No” to the question, “Do you think there is a reasonable possibility that  
 1432 the adverse event may have been caused by the study drug?”

1433       In case of a serious adverse event, causal relationship to other treatments should also be  
 1434 assessed. If a serious adverse event is considered related to study procedures, the relationship should  
 1435 be "Related".

1436 **10.6. Measures taken when an adverse event occurs and follow-up survey**

1437 The investigator, etc. should monitor each subject for adverse events during the study treatment  
1438 period and for 90 days after the last dose of the study drug, and take appropriate measures and  
1439 follow up the subject if any adverse event has occurred.

1440 All adverse events that occurred within 90 days after the last dose should be followed up to  
1441 resolution unless, in the opinion of the investigator, etc., they will not resolve due to the subject's  
1442 underlying disease (pre-existing disease such as a complication), or there is a reasonable reason such  
1443 as subsequent therapy, missed visit, or death. If follow-up cannot be performed, this should be  
1444 recorded in the medical chart.

1445 **10.7. Adverse events that must be reported (report of serious adverse events)**

1446 If the investigator, etc. or a study coordinator became aware of the occurrence of a serious  
1447 adverse event during the clinical study, he/she must immediately (within 24 hours) report the  
1448 adverse event to the coordinating investigator using a detailed report (“[Medical] Form 12 and Form  
1449 for detailed description (or Form 12-1, 2) Serious Adverse Event Report”) in accordance with the  
1450 separately specified "Procedures for Handling of Safety Information" and also report it to the head of  
1451 the site according to the rules of the site.

1452 The information essential for the investigator, etc. to report a serious adverse event for the first  
1453 time is the registration number or subject identification code, adverse event term, seriousness, and  
1454 onset date. The following detailed information should also be reported immediately after it is  
1455 obtained.

- 1456 · Severity
- 1457 · Outcome (date of disappearance, if possible)
- 1458 · Causal relationship (causal relationship to the study drug and, if applicable, concomitant  
1459 medications)
- 1460 · Date on which it became serious
- 1461 · Whether or not the study drug was discontinued
- 1462 · Treatment for the adverse event
- 1463 · Concomitant therapy (excluding treatment for the adverse event)
- 1464 · Concomitant medications (If the causal relationship with the adverse event cannot be evaluated,  
1465 prior medications should also be included)
- 1466 · Date of birth and sex
- 1467 · History of present illness (complications)
- 1468 · Relevant medical history
- 1469 · Date of death and course until death, if applicable

1470

1471 Multiple adverse events may be recorded as adverse events leading to discontinuation or death.  
1472 If the cause of death is unknown, it should be handled as “death of unknown cause”. If an autopsy  
1473 was performed, a copy of the autopsy report should be submitted as necessary.

1474 The coordinating investigator should report serious adverse events reported by the investigator,  
1475 etc. or the study drug provider to investigators of other sites, sponsor-investigators, and the study  
1476 drug provider. Investigators of other sites, sponsor-investigators, and the study drug provider should  
1477 notify the coordinating investigator that the information has been received.

1478 The investigator, etc. must also immediately (within 24 hours) report any additional  
1479 information on a serious adverse event or a non-serious adverse event that later became serious  
1480 according to the above procedure.

1481

## 1482 **10.8. Report to Minister of Health, Labour and Welfare**

1483 If it is necessary to report adverse events obtained in “10.7 Adverse events that must be  
1484 reported (report of serious adverse events)” to the Minister of Health, Labour and Welfare, the  
1485 coordinating investigator should prepare a report in accordance with the separately specified  
1486 “Procedures for Handling of Safety Information” in coordination with the investigator and submit it  
1487 to the Pharmaceuticals and Medical Devices Agency within the specified period.

## 1488 **10.9. Report to study drug provider**

1489 When the coordinating investigator obtained information on “10.7 Adverse events that must be  
1490 reported (report of serious adverse events)”, abnormal liver function values as defined by Hy's law,  
1491 overdose, or pregnancy, the coordinating investigator should report it to the study drug provider in  
1492 accordance with the separately specified “Procedures for Handling of Safety Information”.

1493 If a report was submitted to the Pharmaceuticals and Medical Devices Agency in “10.8 Report  
1494 to Minister of Health, Labour and Welfare”, a copy of the report should be submitted to the study  
1495 drug provider.

## 1496 **10.10. Measures taken at the time of pregnancy**

### 1497 **Female Exposure**

1498 If a female subject becomes pregnant during study treatment, the protocol treatment must be  
1499 discontinued immediately.

1500 Pregnancy itself is not considered an adverse event unless there is a suspicion that the study  
1501 drug may have reduced the effect of the contraceptive medication. Congenital anomaly and  
1502 spontaneous abortion should be reported as a serious adverse event. Elective abortion  
1503 unaccompanied by complications should not be handled as an adverse event. However, outcomes of

1504 all pregnancies (spontaneous abortion, elective abortion, extra-uterine pregnancy, normal birth,  
1505 congenital anomaly) should be followed up and documented even if the subject was withdrawn from  
1506 the study. If the investigator, etc. became aware of pregnancy within 90 days after the last dose of  
1507 durvalumab, the investigator, etc. should immediately (within 24 hours of awareness) report the  
1508 event to the coordinating investigator. The coordinating investigator should report the information to  
1509 the study drug provider in accordance with “10.9 Report to study drug provider”.

1510

### 1511 **Male Exposure**

1512 Pregnancy in a partner of a male subject is not considered an adverse event. Where possible,  
1513 outcomes of all pregnancies (spontaneous abortion, elective abortion, extra-uterine pregnancy,  
1514 normal birth, or congenital anomaly) should be followed up and documented. If information on  
1515 pregnancy is obtained from a partner of a male subject, consent must be obtained from the partner of  
1516 the male subject for collection of information related to pregnancy and outcome. The outcome of any  
1517 pregnancy in a partner of a subject occurring from the start of study treatment until 90 days after the  
1518 end of study treatment should be followed up and documented.

### 1519 **10.11. New cancers**

1520 The development of a new primary cancer should be regarded as a serious AE. New primary cancers  
1521 are those that are not the primary reason for the administration of the study treatment and have  
1522 developed after the inclusion of the patient into the study. Metastasis should not be reported as an  
1523 AE/SAE, as they are considered to be disease progression.

1524

## 1525 **11. Response assessment and endpoints**

### 1526 **11.1. Definition of endpoints**

#### 1527 11.1.1. 12-month progression-free survival rate

1528 Regard the second enrollment date as the starting date, and check the presence/absence of  
1529 either all-cause death or progression based on image tests or diagnosis of an evident progression in  
1530 the clinical setting as of when 12 months (1 year) have passed. The survey for patients whose death  
1531 or progression has not been confirmed as of Month 12 or patients for whom it is unknown when  
1532 these events were achieved will be censored at the most recent medical consultation date as  
1533 outpatient/inpatient before loss to follow-up.

1534 Progression based on image tests should be assessed according to “New response evaluation  
1535 criteria in solid tumors: Revised RECIST guideline (version 1.1)-Japanese translation JCOG  
1536 version-”.

1537 11.1.2. Progression-free survival

1538 With the registration date as the starting date, the shortest period until either the date of  
1539 all-cause death, the date the image test revealed progression, or the date when progression was  
1540 diagnosed in the clinical setting.

1541 The survey for patients whose death or progression has not been confirmed at the time of  
1542 analysis or patients for whom it is unknown when these events were achieved will be censored at the  
1543 most recent medical consultation date as outpatient/inpatient before loss to follow-up.

1544 11.1.3. Overall survival

1545 With the registration date as the starting date, the period until the date of all-cause death.  
1546 Patients who survive or are lost to follow-up at the time of analysis will be censored on the last  
1547 survival confirmation date.

1548 11.1.4. Response rate

1549 Follow “New response evaluation criteria in solid tumors: Revised RECIST guideline (version  
1550 1.1)-Japanese translation JCOG version-” for evaluation of tumor response.

1551 The assessment at baseline should be performed using image tests prior to treatment start.

1552 To determine CR and PR of best overall response, at least 4-week response continuing period is  
1553 required for confirmation. To determine SD of best overall response, overall SD of a 8-week period  
1554 from registration is required. Response rate is the percentage of subjects with CR or PR in the  
1555 analysis population.

1556 The response at each time point should be assessed according to Tables 1-3 of RECIST version  
1557 1.1 “4.4.1. Response at each time point”. (Note that tumor marker should not be used for assessment  
1558 of CR for non-target lesions.)

1559 11.1.5. Duration of response

1560 The shortest period until either the date the image test revealed progression, the date when  
1561 progression was diagnosed in the clinical setting, or the date of death (by all causes) from the date  
1562 when CR or PR of best overall response is first recorded.

1563

1564 **12. Statistical matters**

1565 The outline of statistical analysis is shown below. More detailed analysis method should be  
1566 provided in a separately specified statistical analysis plan.

1567 **12.1. Analysis population**

1568 The definitions of the analysis population in this study are as follows. Handling of each case is  
1569 decided by the coordinating investigator and the statistical analysis supervisor through discussion  
1570 prior to the data lock.

1571 1) All subjects registered

1572 All subjects registered in this study.

1573 2) Full analysis set (FAS)

1574 Consist of all subjects registered who received at least one dose of the study drug and were  
1575 evaluated for efficacy at least once.

1576 3) Analysis population of measurable tumor response

1577 Consist of all subjects registered who received at least one dose of the study drug and were  
1578 found to have measurable lesions in the imaging at baseline. The major analysis will be  
1579 performed for ORR specified in RECIST guideline v1.1 and other RECIST-based endpoints in  
1580 the analysis population of measurable tumor response.

1581 4) Safety analysis set

1582 Consists of subjects registered who received at least one dose of the study drug.

1583 **12.2. Data handling**

1584 12.2.1. Handling of protocol deviation data

1585 The coordinating investigator decides on how to handle the deviations that require consultation.

1586 12.2.2. Handling of missing, rejected and abnormal data

1587 The test/observation items that were not tested or observed at all should be treated as missing  
1588 data. The data will not be complemented for the missing data with an estimated or calculated value.

1589 **12.3. Statistical analysis method**

1590 The efficacy endpoints are analyzed in FAS and the analysis population of measurable tumor  
1591 response, and analyzed mainly in FAS.

1592 The safety endpoints are analyzed in the safety analysis set.

1593 12.3.1. Demographic and other baseline characteristics

1594 Summary statistics should be calculated for demographic and other baseline characteristics. For  
1595 categorical data, frequencies and percentages should be presented. For continuous data, mean value,  
1596 standard deviation, median, minimum, and maximum values should be presented.

1597 12.3.2. Analysis of the primary endpoint

1598 For the primary analysis of this study, if the lower limit of the confidence interval for the  
1599 12-month proportion progression-free (by the Diagnostic Radiology Central Review Committee)  
1600 obtained in this study in the FAS is greater than the threshold of 28%, then the combination therapy  
1601 in this study is considered a promising therapy. The 12-month proportion progression-free should be  
1602 estimated using the Kaplan-Meier method, and Greenwood's formula should be used to calculate the  
1603 90% confidence interval.

1604 12.3.3. Analysis of the secondary endpoints

1605 **Progression-free survival (assessed by the attending physician)**

1606 Progression-free survival should be estimated using the Kaplan-Meier method, and the median  
1607 value and its 95% confidence interval should be calculated. Confidence interval for the median value  
1608 should be calculated using the method of Brookmeyer and Crowley.

1609 In addition, proportion progression-free at 6, 18, and 24 months should be estimated.

1610

1611 **Overall survival**

1612 Overall survival should be estimated using the Kaplan-Meier method, and the median value  
1613 and its 95% confidence interval should be calculated. Confidence interval for the median value  
1614 should be calculated using the method of Brookmeyer and Crowley. In addition, the overall survival  
1615 rate at 24 months (2 years) should be estimated.

1616

1617 **Response rate**

1618 The proportion of the best overall response of CR and PR in the analysis population of  
1619 measurable tumor response and its 95% confidence interval (Exact method) should be calculated.

1620

1621 **Disease control rate**

1622 The proportion of the best overall response of SD or better in the analysis population of  
1623 measurable tumor response and its 95% confidence interval (Exact method) should be calculated.

1624

1625 **Duration of response**

1626 Duration of response should be estimated using the Kaplan-Meier method, and the median  
1627 value and its 95% confidence interval should be calculated. Confidence interval for the median value  
1628 should be calculated using the method of Brookmeyer and Crowley.

1629

1630 **Time to death or distant metastasis**

1631 Time to death or distant metastasis should be estimated using the Kaplan-Meier method, and

1632 the median value and its 95% confidence interval should be calculated. Confidence interval for the  
1633 median value should be calculated using the method of Brookmeyer and Crowley.

1634

### 1635 **Safety**

1636 For all adverse events, the CTCAE v5.0 -JCOG is used to determine the frequency and the  
1637 percentage of events by grade, grade 3 events, and grade 4 events. In addition, the frequency and the  
1638 percentage are calculated by preferred term (PT) and by System Organ Class (SOC) of MedDRA/J.

1639

### 1640 **Subgroup analyses**

1641 Subgroup analyses should be performed for the following stratification factors:  
1642 Progression-free survival and overall survival should be estimated using the Kaplan-Meier method,  
1643 and the median value and its 95% confidence interval should be calculated for each subgroup. For  
1644 reference, the hazard ratio for the treatment effect and its 95% confidence interval should be  
1645 calculated, using the Cox proportional hazard model.

1646 Sex, age (< 65 and  $\geq$  65 years, < 75 and  $\geq$  75 years), tissue (squamous cell  
1647 carcinoma/non-squamous cell carcinoma), smoking history (current, former/ non-smoker), disease  
1648 stage (IIIA, IIIB/IIIC), maximum response (CR + PR/SD), PD-L1 expression ( $\geq$  25%/1% to 24%),  
1649 driver gene mutation (EGFR/ALK/ROS1 gene mutation, etc.) (negative/positive)

1650

## 1651 **13. Ethical matters**

1652 All researchers related to this clinical study will conduct the study in accordance with the  
1653 Declaration of Helsinki (amended in Fortaleza in October 2013), the standards specified in Article  
1654 14, Paragraph 3 and Article 80-2 of the Pharmaceuticals, Medical Devices, and Other Therapeutic  
1655 Products Act, and the “Ministerial Ordinance on Good Clinical Practice (GCP)” (Ordinance No. 9 of  
1656 the Ministry of Health, Labour and Welfare dated January 22, 2016).

1657 Also, all the said researchers shall comply with the study protocol unless interfering with the  
1658 safety or human rights of the subjects.

### 1659 **13.1. Protection of patient's privacy**

1660 Information, which may identify the subjects such as the name of a subject, should not be notified  
1661 from the study site to the coordinating investigator and other relevant persons.

1662 The subjects should be identified or checked using enrollment numbers to be issued at the time of  
1663 enrollment, subject ID codes\*, gender and/or date of birth so that any third party can identify the  
1664 subjects such as their names.

1665 In addition, prepared CRFs and other relevant documents shall be used only for the purpose of this  
1666 study.



1667 \* Subject ID code: A subject ID code refers to a number (code) used when the study site provides  
1668 a subject's information to the external party.

### 1669 **13.2. Acquisition of informed consent**

1670 The investigator/subinvestigator should adequately explain the items listed below to the subjects  
1671 using written information for subjects, which has been determined by the head of the study site  
1672 based on the approval of the institutional review board (IRB), prior to their enrollment. Also, the  
1673 investigator/subinvestigator should give the subjects an opportunity to ask questions and an ample of  
1674 time to decide whether or not to participate in the study.

1675 After confirming that the subjects have fully understood the contents of the study, written  
1676 voluntary consent for participation in the study should be received personally from the subjects.

1677 The investigator/subinvestigator should affix his/her seal or signature to an informed consent form  
1678 and promptly hand a copy of the dated informed consent form to the subject. The original of the  
1679 informed consent form should be kept in his/her medical chart.

### 1680 **13.3. Items to be explained to patients with explanatory documents**

- 1681 (1) That the study involves research.
- 1682 (2) The purpose of the study.
- 1683 (3) The name, title and contact address of the investigator or subinvestigator
- 1684 (4) The method of the study (including those aspects of the study that are experimental,  
1685 inclusion/exclusion criteria for subjects, and the probability for random assignment to  
1686 each treatment if randomization is performed).
- 1687 (5) The expected clinical benefits and risks or inconveniences to the subject (When there is  
1688 no intended benefit to the subject, the subject should be made aware of this.). The  
1689 subject shall be notified all the latest information related to foreseeable risks based on  
1690 the clinical study.
- 1691 (6) If the subjects are patients, the alternative procedure(s) or course(s) of treatment that  
1692 may be available to the subject, and their important potential benefits and risks.
- 1693 (7) The expected duration of the subject's participation in the study.
- 1694 (8) That the subject's participation in the study is voluntary and that the subject or his/her  
1695 representative may refuse to participate or withdraw from the study, at any time, without  
1696 penalty or loss of benefits to which the subject is otherwise entitled.
- 1697 (9) That the monitor(s), the auditor(s), the IRB, and the regulatory authority(ies) will be  
1698 granted direct access to the subject's original medical charts without violating the  
1699 confidentiality of the subject, and that, by signing the informed consent form, the  
1700 subject or his/her representative is authorizing such access.

- 1701 (10) If the results of the study are published, the subject's identity will remain confidential.
- 1702 (11) The person(s) at the study site to contact for further information regarding the study and
- 1703 the rights of subjects, and whom to make inquiries or contact in the event of
- 1704 study-related injury.
- 1705 (12) The compensation and/or treatment available to the subject in the event of study-related
- 1706 injury.
- 1707 (13) Type of the IRB investigating and reviewing the appropriateness of the study, matters to
- 1708 be reviewed by each IRB, and other study-related matters concerning the IRB.
- 1709 (14) That the subject may check written procedures and other relevant documents of the IRB
- 1710 and should make a request if he/she wishes to do so. If the written procedures, etc. of the
- 1711 IRB are disclosed on a website, its address, and if they are not disclosed, the written
- 1712 procedures, etc. are accessible to the public.
- 1713 (15) The approximate number of subjects involved in the study.
- 1714 (16) That the subject or his/her representative will be informed immediately if information
- 1715 becomes available that may be relevant to the subject's or his/her representative's
- 1716 willingness to continue participation in the study.
- 1717 (17) The foreseeable circumstances and/or reasons under which the subject's participation in
- 1718 the study may be terminated.
- 1719 (18) The anticipated expenses, if any, to the subject for participating in the study.
- 1720 (19) The anticipated payment (e.g., agreement on calculating the amount of payment), if any,
- 1721 to the subject for participating in the study.
- 1722 (20) The subject's responsibilities
- 1723 (21) Matters concerning intellectual property rights
- 1724 (22) Matters concerning the conflict of interest (COI)
- 1725 (23) Other necessary matters

1726 **13.4. Preparation and revision of the explanatory documents and informed**

1727 **consent forms/provision of information for subjects**

- 1728 1) The investigator at each study site should prepare the site version of written information for
- 1729 subjects and an informed consent form using the samples of the written information for
- 1730 subjects and an informed consent form created by the coordinating investigator.
- 1731 2) If information, which may affect the subjects' willingness to continue taking part in the study,
- 1732 is obtained, the investigator or subinvestigator should promptly notify the information to the
- 1733 subjects and confirm their willingness to continue participating in the study. Also, the
- 1734 investigator or subinvestigator should record the date of providing the information to the
- 1735 subject, the details of the notified information and the confirmation result in the original

1736 medical records such as a medical chart.

1737 3) When it is found to be necessary to amend the informed consent form and written  
1738 information for subjects (if new important information, which may be relevant to the subjects'  
1739 consent, is obtained), the investigator should promptly amend the informed consent form and  
1740 written information for subjects based on the concerned information and receive the approval  
1741 of the IRB beforehand. In addition, the investigator and subinvestigator should give an  
1742 explanation again to all subjects participating in the study using the revised written  
1743 information for subjects and receive written voluntary informed consent for continue taking  
1744 part in the study from the subjects.

### 1745 **13.5. Approval of the institutional certification body**

#### 1746 13.5.1. Approval of the IRB

1747 When participating in the clinical study, a decision of the head of the study site based on the  
1748 approval of the IRB at each study site for the appropriateness of conducting the study shall be  
1749 obtained.

1750 When approval is obtained, the original of an approval certificate should be properly retained at  
1751 the study site, its copy should be sent to the coordinating investigator, and the coordinating  
1752 investigator should properly keep the copy

#### 1753 13.5.2. Review on Continuation by the IRB

1754 1) The investigator should submit a written summary of the current status of the clinical study  
1755 once a year or more frequently upon request of the IRB to the head of the study site to  
1756 undergo a review on continuation by the IRB.

1757 2) The head of the study site should seek opinion on the continuation of the clinical study from  
1758 the IRB in the following cases where: A report on the current status of the study or reports on  
1759 adverse drug reactions (ADRs) during the study are received; deaths, which may be  
1760 attributable to ADRs associated with the investigational drug, or other SAEs occurred and  
1761 reported by the investigator; information, which may affect the subjects' willingness as to  
1762 whether or not to remain participating in the study, is obtained; and such is found to be  
1763 necessary for other reasons.

1764 3) When a monitoring or audit report for the study is received, the head of the study site should  
1765 seek the opinion from the IRB on the appropriateness of conducting the study at the  
1766 concerned study site

### 1767 **13.6. Responsibility and compensation for patient's health hazard**

1768 In the case where any injury attributable to the conduct of the study occurred in the subjects, the

1769 investigator/sponsor-investigator should give the best treatment to the subjects. When it is  
1770 determined to be an unknown SAE attributable to the study, it should be handled in accordance with  
1771 a separately specified summary of the compensation system. Furthermore, the subjects' health  
1772 insurance will apply to other necessary measures for injuries.

1773

## 1774 **14. Monitoring and audit**

### 1775 **14.1. Monitoring**

1776 The sponsor-investigator should prepare written monitoring procedures and have monitors  
1777 perform monitoring in accordance with the written procedures while taking account of the opinions  
1778 of the IRB at the study site to verify that the protection of human rights, the maintenance of safety,  
1779 and the improvement of welfare for the subjects are implemented, that the study has been conducted  
1780 in compliance with the latest protocol and GCP Ordinance, and that it can be validated that clinical  
1781 study data and other relevant items reported by the investigator or subinvestigator are accurate and  
1782 complete as compared with study-related records such as source documents.

### 1783 **14.2. Report on monitoring**

- 1784 1) 1)When it is identified that the study at the study site is not carried out in accordance with  
1785 the GCP Ordinance or protocol as a result of monitoring, a monitor should immediately  
1786 notify such a fact to the investigator at the study site.
- 1787 2) 2)When on-site monitoring was performed, monitors should submit a monitoring report  
1788 presenting matters listed below at each time to the sponsor-investigator, the head of the study  
1789 site pertaining to the monitoring, and the coordinating investigator:
- 1790 (1) Date and time when the monitoring was implemented;
  - 1791 (2) Names of monitors;
  - 1792 (3) Name of the investigator/subinvestigator to whom an explanation was asked at the time  
1793 of monitoring;
  - 1794 (4) Summary of monitoring results;
  - 1795 (5) Matters informed to the investigator pursuant to the provisions of the preceding  
1796 paragraph; and
  - 1797 (6) Measures to be taken for the matters set forth in the preceding item and monitoring  
1798 findings on the said measures

1799

1800 The status of the progress of the study, enrollment eligibility, safety and other relevant matters  
1801 should be reported to the sponsor-investigator and the head of the study site pertaining to  
1802 monitoring.

1803 **14.3. Audit**

1804 The sponsor-investigator should prepare a written plan and operating procedures for audits to  
1805 ensure the quality of the study and evaluate whether or not the study being conducted in compliance  
1806 with the GCP Ordinance, protocol and procedures independently and separately from usual  
1807 monitoring and quality control activities for the clinical study, and have auditors perform audits in  
1808 accordance with the plan and procedures while taking account of the opinions of the IRB at the study  
1809 site.

1810 **14.4. Report on audit**

1811 When an audit was carried out, auditors prepare an audit report recording matters verified at the  
1812 audit and audit certificate demonstrating that the audit has been conducted, and submit them to the  
1813 sponsor-investigator, the head of the study site, and the coordinating investigator.

1814

1815 **15. Study quality control and quality assurance**

1816 **15.1. Data quality control**

1817 The sponsor-investigator should implement the quality control of this study, and keep and retain  
1818 control records to ensure the implementation and safety of the study, and the accuracy and reliability  
1819 of data.

1820 **15.2. Data quality assurance**

1821 The quality assurance of the study should be ensured by auditors in accordance with the Sections  
1822 “14.3. Audits” and “14.4. Report on audit.”

1823 **15.3. Record access**

1824 The head of the study site shall collaborate in monitoring and audits implemented by the  
1825 sponsor-investigator and inspections by the IRB and other relevant parties. When monitoring, audits  
1826 or inspections are to be carried out, the head of the study site should grant access to all study-related  
1827 records such as source documents upon request of the monitors, auditors, IRB and other relevant  
1828 parties.

1829 **15.4. Data handling and record retention**

1830 15.4.1. Handling of the CRF and data

1831 The study site should pay careful attention to the protection of personal information with regard to  
1832 the handling of CRFs or test reports and their copies to prevent the leakage, loss, transcription and

1833 unauthorized copying of the information.

1834 15.4.2. Retention of records

1835 CRFs or test reports and their copies should be archived until the days stipulated below.

1836 1) Study site

1837 Essential documents, which should be retained by the head of the study site or the IRB, should  
1838 be properly kept by a record archiving manager designated by the head of the study. The duration  
1839 of archiving shall be the day specified in the following Item (1) or (2) whichever is later. When  
1840 the sponsor-investigator needs to retain these documents at the study site for a period longer than  
1841 this, the actions for the archiving period and method should be discussed with the  
1842 sponsor-investigator.

1843 (1) Date of marketing approval for the investigational drug (when development  
1844 discontinuation or the fact of not attaching the results of the clinical study to an approval  
1845 application is notified, the day 3 years from the day of receiving such a notification)

1846 (2) Day 3 years after the discontinuation or completion of the study

1847

1848 2) Sponsor-investigator

1849 The sponsor-investigator should properly retain study-related records for a period until the day  
1850 set forth in the following Item (1) or (2) whichever is later in accordance with separately  
1851 stipulated "Procedures for record archiving." The sponsor-investigator may request the head of the  
1852 study site, with which he/she affiliates, to carry out activities for retaining the records. When the  
1853 sponsor-investigator is disengaged from his/her affiliated study site, the head of his/her affiliated  
1854 study site may take charge of the record archiving activities.

1855 When it is no longer necessary to archive the records, the sponsor-investigator shall notify such  
1856 a fact to the head of the study site or the IRB organizer via the head of the study site.

1857 (1) The day when the investigational drug supplier receives drug marketing approval for the  
1858 investigational drug (when development discontinuation or the fact of not attaching the  
1859 results of the clinical study to an approval application is notified, the day 3 years from  
1860 the day of receiving such a notification)

1861 (2) Day 3 years after the discontinuation or completion of the study

1862

1863 In the case where drug approval is granted for the investigational drug, the sponsor-investigator  
1864 should take necessary measures for the handling of the said records such as concluding a contract  
1865 with the investigational drug supplier because an approval holder is required to archive the said  
1866 records for a given period pursuant to the provisions of Article 101 of the Enforcement  
1867 Regulations of the Pharmaceuticals, Medical Devices, and Other Therapeutic Products Act.

1868

1869 3) Investigator

1870 The investigator should retain study-related documents as instructed by the head of the study

1871 site.

1872

## 1873 **16. Change, discontinuation and termination regarding study**

### 1874 **implementation**

#### 1875 **16.1. Protocol revision**

1876 1) When it is found to be necessary to amend the protocol other than administrative matters

1877 (e.g., modifications in texts such as a change of a telephone number) of the study, the

1878 sponsor-investigator should make amendments after discussing the appropriateness of the

1879 changes and their effects on study evaluation with the other sponsor-investigators and

1880 coordinating investigator, and, as necessary, efficacy and safety evaluation committee and

1881 other relevant parties.

1882 2) The sponsor-investigator should promptly notify the details of protocol amendments to all the

1883 heads of the study sites and the coordinating investigator, and take procedures specified at

1884 each study site.

#### 1885 **16.2. Deviations, etc. from the protocol**

1886 1) The investigator or subinvestigator at each study site shall not make any protocol deviation or

1887 change before the investigator obtains written the approval of the IRB based on its prior

1888 review. However, this is not applicable to the case where it is necessary to make a deviation

1889 or change due to inevitable medical reasons such as avoiding immediate hazard to the

1890 subjects.

1891 2) The investigator or subinvestigator should record all deviations from the protocol regardless

1892 of their reasons.

1893 3) The investigator or subinvestigator may implement a protocol deviation or change when such

1894 is necessary for inevitable medical reasons such as avoiding immediate hazard to the subjects.

1895 In such a case, the investigator should immediately submit a document presenting such a fact

1896 and the reason to the head of the study site to promptly report such a fact and the reason to

1897 the IRB and other relevant parties via the head of the study site.

#### 1898 **16.3. Discontinuation and interruption of study implementation**

1899 When the clinical study itself is discontinued or suspended, the sponsor-investigator should

1900 make a decision after consultation with the coordinating investigator, and promptly report the

1901 decision and the reason to the head of the site and the regulatory authority in writing.

1902 Discontinuation refers to premature discontinuation of the study for any of the following reasons:

- 1903 · It is judged that there is a problem in the safety of this study
- 1904 · The significance of this study is denied
- 1905 · Completion of the study is considered difficult due to delay in patient enrollment, etc.

1906

1907 The follow-up period in the case of discontinuation will follow the description in this protocol  
1908 starting from the last registration date. Even if the study is discontinued, the sponsor-investigator  
1909 should discuss with the study drug provider so that the study drug can be continuously administered  
1910 if the subject wishes to do so, unless there is any therapeutic problem.

#### 1911 **16.4. Discontinuation and interruption at medical institutions**

1912 If the sponsor-investigator finds that the site has interfered with the proper conduct of the study  
1913 by violating the GCP Ministerial Ordinance and the protocol (except for medically unavoidable  
1914 reasons such as avoidance of urgent risks to subjects), the sponsor-investigator should discontinue  
1915 the study at the site after notifying the coordinating investigator in advance. When the clinical study  
1916 is suspended or discontinued, the sponsor-investigator should promptly report this fact and the  
1917 reason to the head of the site and the coordinating investigator in writing. The coordinating  
1918 investigator should promptly notify the sponsor-investigators of other sites of this fact and the reason.  
1919 If the study is discontinued due to non-compliance, the sponsor-investigator should promptly report  
1920 it to the regulatory authority.

1921 If the head of the site is reported the suspension or discontinuation of the study from the  
1922 sponsor-investigator, the head of the site will promptly notify the institutional review board in  
1923 writing and provide detailed explanation.

#### 1924 **16.5. Efficacy/Safety Assessment Committee**

1925 The Efficacy/Safety Assessment Committee should be established to objectively evaluate the  
1926 efficacy and safety of this study from ethical and scientific viewpoints and to propose continuation,  
1927 change, or discontinuation of the study to the sponsor-investigator. The Efficacy/Safety Assessment  
1928 Committee should be operated in accordance with the separately specified “Procedures Related to  
1929 the Efficacy/Safety Assessment Committee”.

1930

### 1931 **17. Study termination and its reporting**

1932 After the termination of the study, the investigator should notify the head of the site of the  
1933 termination of the study in writing and report the summary of the study results in writing. When  
1934 informed by the investigator that the study will be terminated, the head of the site will notify the



1935 institutional review board of the termination and a summary of the results in writing.

1936

## 1937 **18. Study cost payment**

### 1938 **18.1. Study operation cost**

1939 The cost for operation of this study will be supported by AstraZeneca K.K.

### 1940 **18.2. Costs required for protocol treatment**

1941 The study drug (Durvalumab) is provided by AstraZeneca K.K. To costs for tests and diagnostic  
1942 imaging during the study period and concomitant medications to be used in the study, the patients'  
1943 health insurance will be applied. To other necessary measures for health injuries, the patients' health  
1944 insurance will be applied.

1945

## 1946 **19. Matters concerning conflict of interest (COI)**

1947 This clinical study will be supported by AstraZeneca K.K. but conducted as an  
1948 investigator-initiated clinical study. The WJOG will control the conflict of interest (COI) of  
1949 researchers involved in the study and persons supporting the study as follows:

- 1950 1. The COI of study-related persons should be followed as stipulated by the participating sites.
- 1951 2. The ethics committee, WJOG will control the COI of persons playing central roles of the  
1952 study such as the coordinating investigator, study secretary, committee chairperson and  
1953 members, chief director and secretary-general.
- 1954 3. The COI of individual WJOG secretariat staff involved in this study will be controlled in the  
1955 same manner.

1956

## 1957 **20. Disclosure of study results and attribution of the results**

### 1958 **20.1. Disclosure of the results**

1959 After completion of the study, the results will be summarized, adjusted by the coordinating  
1960 investigator and investigator, etc. who conducts the study, and published in appropriate academic  
1961 societies and academic journals in Japan and overseas.

### 1962 **20.2. Clinical study report**

1963 After completion of the study, a clinical study report should be adjusted and prepared by the  
1964 coordinating investigator and investigator, etc. who conducts the study pursuant to "Procedure on  
1965 preparation of clinical study reports" separately specified.

1966 **20.3. Intellectual property right**

1967 The protocol, registration form and CRF design of this study as well as the database file  
1968 prepared as a result of study implementation and its output forms shall belong to WJOG. The  
1969 intellectual property rights related to the study drug invention\* are attributed to AstraZeneca K.K.

1970 The intellectual property that arises in the exploratory research belongs to the researcher.

1971 When intellectual property rights including a patent right (except intellectual property rights  
1972 relating to the study drug invention) arise in this study, the rights shall be divided according to the  
1973 contribution level between the WJOG and the medical institution.

1974 \* “Study drug invention” refers to any invention regarding the study drug (including but not  
1975 limited to new indications or dosage of the study drug) devised, made or conducted in other  
1976 ways by the WJOG, the investigator or those who are related to a medical institution of the  
1977 study alone or with others for this investigator-initiated clinical study. The study drug invention  
1978 includes the ones related to (a) metabolic activity, pharmacological activity, adverse reactions,  
1979 drug metabolism, mechanism of action, safety and drug interaction of the study drug, or (b)  
1980 biomarkers, tests, diagnostic methods or diagnostic agents that are used in some way to  
1981 anticipate the patient’s reaction or tolerance to the study drug or to select the patients to be  
1982 treated with the study drug. Provided, however, that the intellectual property obtained in an  
1983 accompanying research belongs to the accompanying researcher.

1984 **20.4. Secondary use of data**

1985 If the coordinating investigator, investigator, etc. who conducts the study, and the WJOG  
1986 (permanent) board decided that it is beneficial to make secondary use of the data obtained in this  
1987 study for integrated analysis/meta-analysis etc., the secondary use of the data is permitted with  
1988 personal information excluded.

1989 **20.5. Provision of data**

1990 After completion of the clinical study, this clinical study data and the relevant forms that have  
1991 been anonymized may be provided for a fee or free of charge at the instruction/guidance of the  
1992 regulatory authorities, or at the request of the related companies.

1993 **2. Preliminary registration of the study plan**

1994 Before this clinical study is started, WJOG will register the study in advance with the Japan  
1995 Pharmaceutical Information Center Clinical Trials Information (Japic CTI).

1996

1997 **21. Study implementation structure**

1998 See the separate volume “Clinical Study Implementation Structure.”.

1999

2000 **22. Others**

2001 1) Training for study staff

2002 The sponsor-investigator/ investigator should provide study staff related to this clinical study at  
2003 the site with training on the procedures for the study and systems to be used prior to enrollment of  
2004 the first patient at the study site, and record its results.

2005 2) Contracts between WJOG and sites

2006 The WJOG should conclude a support agreement with each study site to support the conduct of  
2007 the study, expenses, acquisition of the study drug, purchasing clinical study liability insurance, and  
2008 other activities delegated to the coordinating investigator from the sponsor-investigator/investigator.

2009

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2087

## 2088 **24. Revision history**

2089 Ver 1.0: April 20, 2019 approved by WJOG board committee

2090 Ver 1.1: May 25, 2019 approved by WJOG executive board committee.

2091 Ver 1.2: December 21, 2019 approved by WJOG board committee

2092 Ver 2.0: March 7, 2020 approved by WJOG executive board committee.

2093 Ver 2.1: April 18, 2020 approved by WJOG executive board committee.

2094 Ver 3.0: July 13, 2020 approved by WJOG executive board committee.

2095 Ver 3.1: March 6, 2021 approved by WJOG executive board committee.

2096 Ver 3.2: April 30, 2022 approved by WJOG executive board committee.