Supplementary Online Content

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This supplementary material has been provided by the authors to give readers additional information about their work.

eAppendix. Methods

Exclusion Criteria

Key exclusion criteria included uncontrolled central nervous system metastases, prior malignancy (except non-melanoma skin cancers and in situ cancers), hypersensitivity to nivolumab, prior anti–glucocorticoid-induced tumor necrosis factor receptor-related protein (GITR) antibody therapy, autoimmune disease, pulmonary disease, corticosteroid treatment or immunosuppressives within 14 days of the first dose, and presence of certain infections.

Study Design and Treatment

All patients signed consent for study entry and tumor biopsies. Investigators were responsible for ensuring that patients were clearly and fully informed about the purpose, potential risks, and other critical issues regarding this clinical study.

BMS-986156 and nivolumab were administered intravenously every 2 weeks (Q2W) in 8-week cycles, for up to 3 cycles. For combination therapies, BMS-986156 was given 30 minutes after nivolumab administration. The escalation monotherapy and combination therapy phases progressed concurrently, wherein cohorts of patients received BMS-986156 monotherapy at doses of 10, 30, 100, 240, or 800 mg Q2W, or combination BMS-986156 at 30, 100, 240, or 800 mg plus nivolumab 240 mg Q2W. The maximum tolerated dose of BMS-986156 was not reached during the escalation phase. The dose levels of 240 mg and 480 mg Q2W BMS-986156 were further investigated in the expansion cohorts based on the exploratory biomarker findings. An additional dose-expansion cohort evaluating BMS-986156 480 mg every 4 weeks (Q4W) plus nivolumab 480 mg Q4W was added to this study. Treatment could be continued beyond the number of planned cycles if the patient had progressive disease per RECIST v1.1 but showed clinical benefit of the treatment and agreed to continue therapy, along with permission from the Bristol-Myers Squibb medical monitor. The treatment was discontinued

when additional disease progression occurred. Patients with ongoing disease control were eligible for 3 additional cycles of treatment on a case-by-case basis.

Statistical Considerations

Dose-escalation decisions were determined by the Bayesian Logistic Regression Method (-copula) model with overdose control principle along with the safety data, pharmacokinetics (PK), and pharmacodynamics findings. The sample size at each dose (at most 12 dose-limiting toxicities–evaluable patients) in these arms depended on observed toxicity and posterior inference. Approximately 60 patients were expected to be treated during the dose-escalation phase (30 patients for BMS-986156 monotherapy and 30 patients for BMS-986156 in combination with nivolumab).

The expansion phase consisted of approximately 40 patients per cohort, although final enrollment was subject to the discretion of Bristol-Myers Squibb and investigators based on totality of available emerging data. The sample size was determined to achieve a width of approximately 20% in the 95% exact confidence interval for objective response rate using the Clopper-Pearson method. The expansion cohorts included one with mixed tumor types for the purpose of signal seeking and exploration of Q4W dosing. For initial safety evaluation of BMS-986156 480 mg plus nivolumab 480 mg Q4W, 6 patients were enrolled and followed for a minimum of 2 weeks prior to opening the cohort up for full enrollment.

Summary statistics and frequency distributions were tabulated for select demographics and baseline characteristics, safety, efficacy, PK, and biomarker data.

Pharmacokinetics and Immunogenicity

Serum samples were collected from a specified patient population to evaluate BMS-986156 PK and anti-drug antibody response prior to dose administration and at select time points after infusion up to treatment cycle 11. Pharmacokinetic samples after the first dose in cycles 1 and 3

were collected on days 1, 2, 5, 8, and 15, and were used in a non-compartmental analysis to characterize PK parameters using nominal time (with the following parameters: maximum serum concentration [C_{max}] and area under the concentration-time curve for 1 dose interval [AUC_{TAU}]). Serum samples were used in a validated enzyme-linked immunosorbent assay to measure BMS-986156 concentrations.

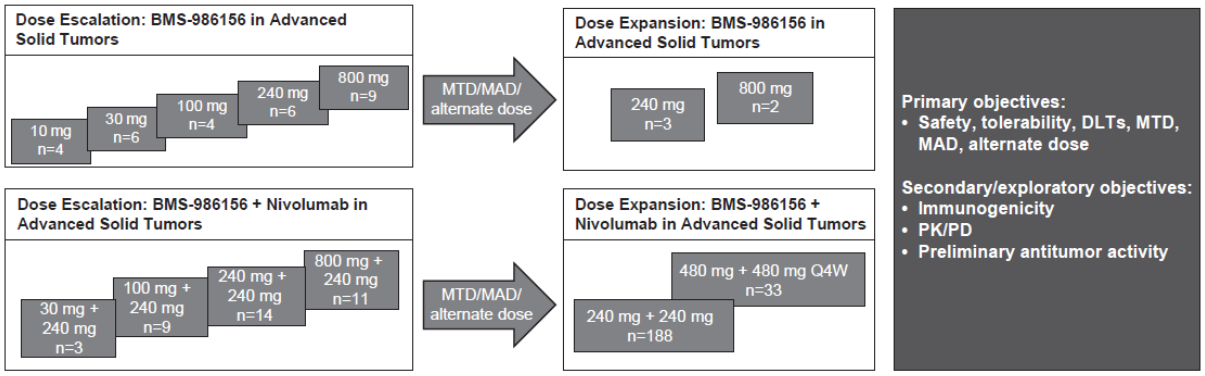
To assess immunogenicity, anti–BMS-986156 antibodies were analyzed using validated electrochemiluminescence, using biotin-labeled BMS-986156 capture and ruthenium-labeled BMS-986156 detection.

Pharmacodynamics

Biomarker analyses were conducted during screening (within 28 days prior to day 1 of the study), prior to dose administration of all 3 cycles and on day 8 and day 15 of cycle 1. The proliferation of CD8+ T-cells and NK-cells (Ki67) was measured through flow cytometry on peripheral blood. Fresh tumor samples were obtained during screening, and additionally for patients in expansion cohorts, prior to dose administration on day 15 of cycle 1 (+/- 2 days). Tumor biopsies and archived tumor biopsies were analyzed for protein expression by immunohistochemistry to identify immune cells that were within or near the tumor, including regulatory T-cells (staining for FoxP3) and tumor-infiltrating CD8+ T-cells (staining for CD8).

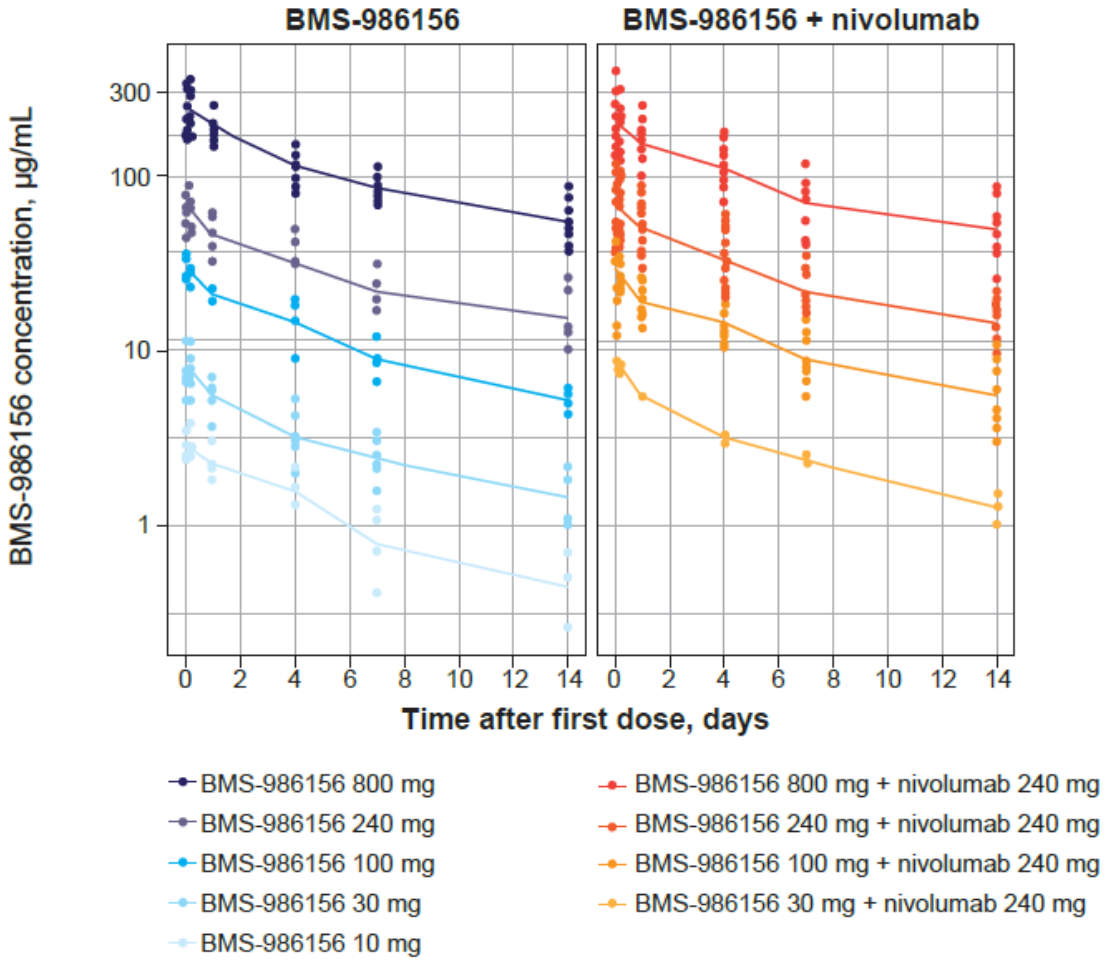
eFigure 1. Study Design Schematic of NCT02598960

DLT, dose-limiting toxicity; MAD, maximum administered dose; MTD, maximum tolerated dose; PD, pharmacodynamics; PK, pharmacokinetics; Q4W, every 4 weeks.



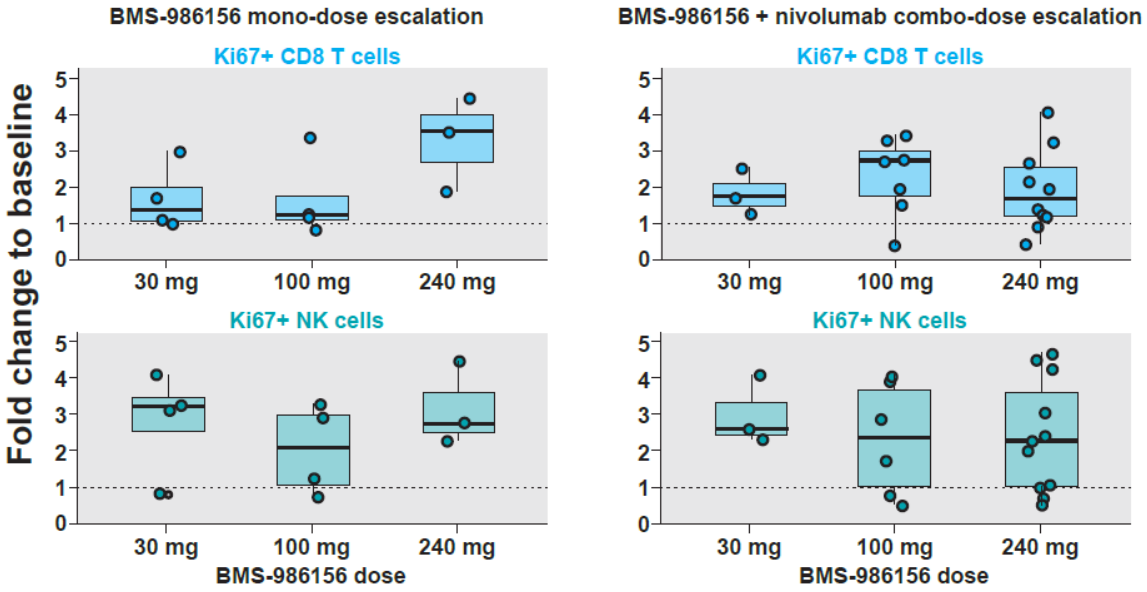
eFigure 2. Pharmacokinetics of BMS-986156 and BMS-986156 Plus Nivolumab

Concentration-time profile pharmacokinetic analysis of BMS-986156 monotherapy or combination with 240 mg nivolumab after cycle 1 at all escalation phase doses. The geometric mean (CV %) values of BMS-986156 after first dose of 10 mg to 800 mg ranged from 3.03 (17.6) - 234.8 (23.9) µg/mL for C_{max}, and 374.8 (29.4) - 32831.7 (21.3) µg.hr/mL for AUC_{TAU}, when given as monotherapy. AUC_{TAU}, area under the concentration-time curve for 1 dose interval; C_{max}, maximum serum concentration; CV, coefficient of variation.



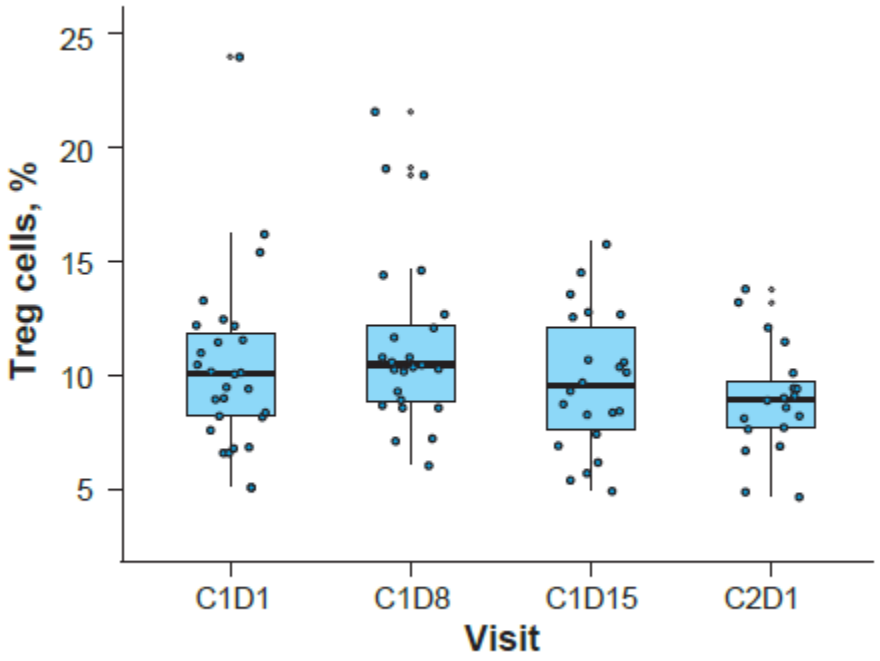
eFigure 3. Peripheral CD8 T-Cell and Natural Killer (NK)-Cell Proliferation in Response to BMS-986156 Monotherapy and BMS-986156, Alone and In Combination With Nivolumab Therapy

The frequency of proliferating (Ki67+) CD8+ T-cells and NK-cells in the periphery was analyzed by flow cytometry for patients receiving BMS-986156 monotherapy or BMS-986156 plus nivolumab combination in the escalation part of the trial (n = 11 and n = 21, respectively). All patients analyzed in the combination cohort received nivolumab at a dose of 240 mg every 2 weeks. Data shown for all patients with available samples as change from baseline levels of peripheral CD8+ T-cell and NK-cell populations.



eFigure 4. Peripheral Regulatory T-cell (Treg) Depletion After BMS-986156 Plus Nivolumab Therapy

Weekly flow cytometry analysis of peripheral Treg populations in patients receiving combination therapy in the dose-escalation cohort (n = 27, 24, 22, and 19 patients at each time point from earliest to latest; all patients included in this analysis received nivolumab at a dose of 240 mg every 2 weeks and BMS-986156 at a dose of 240 mg every 2 weeks).



eTable 1. Patient Demographics and Baseline Characteristics in the Monotherapy and Combination Cohorts

Characteristic	BMS-986156 (n = 34)	BMS-986156 + nivolumab (n = 258)
Age, years		
Median	56.5	60
Range	28-75	21-87
ECOG PS, n (%)		
0	15 (44.1)	115 (44.6)
1	19 (55.9)	141 (54.7)
2	0	2 (0.8)[a]
Sex, n (%)		
Male	18 (52.9)	118 (45.7)
Female	16 (47.1)	140 (54.3)
Race, n (%)		
White	30 (88.2)	232 (89.9)
African-American	1 (2.9)	2 (0.8)
Asian	3 (8.8)	21 (8.1)
Other	0	3 (1.2)
Prior regimens, n (%)		
0	3 (8.8)	7 (2.7)
1	14 (41.2)	106 (41.1)
2	5 (14.7)	56 (21.7)
3	8 (23.5)	43 (16.7)
>3	4 (11.8)	46 (17.8)
Prior anti-PD-1/PD-L1, n (%) Yes	11 (32.4)	51 (19.8)
Tumor type, n (%)		
Bladder	0	29 (11.2)
Breast	2 (5.9)	2 (0.8)
Cervical	5 (14.7)	47 (18.2)
Colon	3 (8.8)	2 (0.8)
Gastric	0	1 (0.4)
HCC[b]	0	14 (5.4)
Head and neck[c]	0	50 (19.4)
Melanoma	6 (17.6)	1 (0.4)
NPC	0	1 (0.4)
NSCLC	3 (8.8)	39 (15.1)
Ovarian	0	44 (17.1)
Pancreatic	1 (2.9)	1 (0.4)
Prostate	1 (2.9)	1 (0.4)
Renal pelvis	0	1 (0.4)
Ureter	0	2 (0.8)
Urethra	0	1 (0.4)
Other	13 (38.2)	21 (8.1)
Not reported	0	1 (0.4)

[a]2 patients were enrolled in the study with ECOG PS of 2, which is higher than the protocol defined limits of 0 or 1; [b]Hepatocellular carcinoma (HCC): hepatitis B virus, hepatitis C virus, non-viral; [c]Includes head and neck squamous cell carcinoma; patients with nasopharyngeal carcinoma were eligible for enrollment.
ECOG PS, Eastern Cooperative Oncology Group Performance Status; NPC, nasopharyngeal carcinoma; NSCLC, non-small cell lung cancer; PD, programmed death receptor.

eTable 2A. Treatment Exposure: BMS-986156 Monotherapy					
	BMS-986156 10 mg (n = 4)	**BMS-986156 30 mg (n = 6)**	**BMS-986156 100 mg (n = 4)**	**BMS-986156 240 mg (n = 9)**	**BMS-986156 800 mg (n = 11)**
Number of doses, n					
Median (range)	7.50 (2.0-9.0)	3.50 (1.0-17.0)	6.00 (4.0-18.0)	4.00 (1.0-22.0)	4.00 (2.0-15.0)
Duration of therapy, weeks					
Median (range)	15.50 (4.1-18.0)	7.00 (2.0-35.0)	12.00 (8.0-37.0)	8.00 (2.0-49.9)	8.10 (4.0-31.0)
Relative dose intensity, %					
<50%	0	0	0	0	0
≥50% to <70%	0	0	0	0	0
≥70% to <90%	0	0	0	1 (11.1)	0
≥90% to <100%	4 (100)	6 (100)	4 (100)	8 (88.9)	11 (100)

eTable 2B. Treatment Exposure: BMS-986156 Plus Nivolumab Combination Therapy										
	BMS-986156 30 mg + nivolumab 240 mg (n = 3)		**BMS-986156 100 mg + nivolumab 240 mg (n = 9)**		**BMS-986156 240 mg + nivolumab 240 mg (n = 202)**		**BMS-986156 800 mg + nivolumab 240 mg (n = 11)**		**BMS-986156 480 mg + nivolumab 480 mg (n = 33)**	
Agent	**BMS-986156**	**Nivolumab**	**BMS-986156**	**Nivolumab**	**BMS-986156**	**Nivolumab**	**BMS-986156**	**Nivolumab**	**BMS-986156**	**Nivolumab**
Number of doses, n										
Median (range)	4.00 (4.0-16.0)	4.00 (4.0-16.0)	4.00 (1.0-24.0)	4.00 (1.0-24.0)	6.00 (1.0-29.0)	6.00 (1.0-29.0)	8.00 (1.0-24.0)	8.00 (1.0-24.0)	2.00 (1.0-12.0)	2.00 (1.0-12.0)
Duration of therapy, weeks										
Median (range)	8.00 (7.9-32.1)	8.00 (7.9-32.1)	8.00 (2.0-48.1)	8.00 (2.0-48.1)	11.95 (2.0-61.0)	11.95 (2.0-61.0)	16.10 (2.0-48.0)	16.10 (2.0-48.0)	10.00 (4.0-47.9)	10.00 (4.0-47.9)
Relative dose intensity, %										
<50%	0	0	0	0	0	0	0	0	0	0
≥50% to <70%	0	0	0	0	4 (2.0)	4 (2.0)	0	0	0	0
≥70% to <90%	0	0	1 (11.1)	1 (11.1)	22 (10.9)	21 (10.4)	2 (18.2)	1 (9.1)	2 (6.1)	2 (6.1)
≥90% to <100%	3 (100)	3 (100)	8 (88.9)	8 (88.9)	176 (87.1)	177 (87.6)	9 (81.8)	10 (90.9)	31 (93.9)	31 (93.9)

eTable 3A. TRAEs in the BMS-986156 Monotherapy Dose Cohorts

	Escalation										Expansion			
	BMS-986156 10 mg (n = 4)		**BMS-986156 30 mg (n = 6)**		**BMS-986156 100 mg (n = 4)**		**BMS-986156 240 mg (n = 6)**		**BMS-986156 800 mg (n = 9)**		**BMS-986156 240 mg (n = 3)**		**BMS-986156 800 mg (n = 2)**	
	Any grade, n (%)	Grade 3-4, n (%)	Any grade, n (%)	Grade 3-4, n (%)	Any grade, n (%)	Grade 3-4, n (%)	Any grade, n (%)	Grade 3-4, n (%)	Any grade, n (%)	Grade 3-4, n (%)	Any grade, n (%)	Grade 3-4, n (%)	Any grade, n (%)	Grade 3-4, n (%)
Total patients with an event, n (%)	**2 (50.0)**	**0**	**2 (33.3)**	**0**	**1 (25.0)**	**0**	**5 (83.3)**	**0**	**7 (77.8)**	**0**	**2 (66.7)**	**0**	**1 (50.0)**	**0**
Pyrexia	0	0	0	0	0	0	3 (50.0)	0	3 (33.3)	0	0	0	0	0
Fatigue	0	0	0	0	0	0	2 (33.3)	0	1 (11.1)	0	1 (33.3)	0	0	0
Night sweats	0	0	0	0	0	0	1 (16.7)	0	0	0	0	0	0	0
Nausea	0	0	2 (33.3)	0	1 (25.0)	0	1 (16.7)	0	1 (11.1)	0	0	0	0	0
Chills	0	0	0	0	1 (25.0)	0	1 (16.7)	0	1 (11.1)	0	0	0	0	0
Alopecia	0	0	0	0	0	0	1 (16.7)	0	0	0	0	0	0	0
Lipase increased	1 (25.0)	0	0	0	0	0	1 (16.7)	0	0	0	0	0	0	0
Arthralgia	1 (25.0)	0	0	0	0	0	0	0	1 (11.1)	0	0	0	0	0
Vomiting	0	0	0	0	0	0	0	0	1 (11.1)	0	1 (33.3)	0	0	0
Pneumonitis	0	0	0	0	0	0	0	0	1 (11.1)	0	0	0	0	0
Pain in extremity	0	0	1 (16.7)	0	0	0	0	0	0	0	0	0	0	0
Myalgia	0	0	0	0	0	0	0	0	1 (11.1)	0	0	0	0	0
Malaise	0	0	1 (16.7)	0	0	0	0	0	1 (11.1)	0	0	0	0	0
Infusion-related reaction	0	0	0	0	0	0	0	0	1 (11.1)	0	0	0	1 (50.0)	0
Influenza-like illness	0	0	0	0	0	0	0	0	1 (11.1)	0	0	0	0	0
Headache	0	0	0	0	0	0	0	0	1 (11.1)	0	0	0	0	0
Diarrhea	0	0	0	0	0	0	0	0	2 (22.2)	0	0	0	0	0
Decreased appetite	0	0	1 (16.7)	0	0	0	0	0	0	0	0	0	0	0

TRAEs, treatment-related adverse events.

eTable 3B. TRAEs in the BMS-986156 Plus Nivolumab Dose Cohorts										
	BMS-986156 30 mg + nivolumab 240 mg (n = 3)		**BMS-986156 100 mg + nivolumab 240 mg (n = 9)**		**BMS-986156 240 mg + nivolumab 240 mg (n = 202)**		**BMS-986156 800 mg + nivolumab 240 mg (n = 11)**		**BMS-986156 480 mg + nivolumab 480 mg (n = 33)**	
	Any grade (in ≥5% patients), n (%)	Grade 3-4, n (%)	Any grade (in ≥5% patients), n (%)	Grade 3-4, n (%)	Any grade (in ≥5% patients), n (%)	Grade 3-4, n (%)	Any grade (in ≥5% patients), n (%)	Grade 3-4, n (%)	Any grade (in ≥5% patients), n (%)	Grade 3-4, n (%)
Total patients with event, n (%)	**2 (66.7)**	**1 (33.3)**	**6 (66.7)**	**1 (11.1)**	**133 (65.8)**	**19 (9.4)**	**9 (81.8)**	**1 (9.1)**	**20 (60.6)**	**2 (6.1)**
Fatigue	0	0	1 (11.1)	0	30 (14.9)	3 (1.5)	3 (27.3)	0	6 (18.2)	0
Pyrexia	2 (66.7)	0	2 (22.2)	0	19 (9.4)	0	5 (45.5)	0	0	0
Infusion-related reaction	0	0	1 (11.1)	0	18 (8.9)	1 (0.5)	2 (18.2)	0	4 (12.1)	0
Nausea	0	0	1 (11.1)	0	18 (8.9)	0	1 (9.1)	0	2 (6.1)	0
Chills	0	0	2 (22.2)	0	15 (7.4)	0	2 (18.2)	0	3 (9.1)	0
Asthenia	0	0	0	0	14 (6.9)	0	0	0	0	0
Diarrhea	0	0	0	0	14 (6.9)	1 (0.5)	1 (9.1)	0	0	0
Arthralgia	0	0	1 (11.1)	0	12 (5.9)	1 (0.5)	1 (9.1)	0	0	0
Lipase increased	0	0	1 (11.1)	1 (11.1)	5 (2.5)	3 (1.5)	0	0	0	0
Anemia	0	0	0	0	5 (2.5)	1 (0.5)	0	0	0	0
AST increased	0	0	0	0	4 (2.0)	1 (0.5)	1 (9.1)	1 (9.1)	0	0
Amylase increased	0	0	1 (11.1)	0	3 (1.5)	2 (1.0)	0	0	0	0
ALT increased	0	0	0	0	3 (1.5)	1 (0.5)	1 (9.1)	0	0	0
Hypertension	0	0	0	0	2 (1.0)	1 (0.5)	0	0	0	0
Hypokalemia	0	0	0	0	2 (1.0)	1 (0.5)	0	0	0	0
WBC count decreased	0	0	0	0	2 (1.0)	1 (0.5)	0	0	0	0
Upper abdominal pain	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Cholestasis	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
COPD	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Colitis	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Increased GGT	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Hepatitis	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Hyperglycemia	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Hypocalcemia	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Pancreatitis	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Platelet count decreased	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Type 1 diabetes mellitus	0	0	0	0	1 (0.5)	1 (0.5)	0	0	0	0
Decreased appetite	1 (33.3)	0	0	0	0	0	2 (18.2)	0	0	0
Dehydration	1 (33.3)	1 (33.3)	0	0	0	0	0	0	0	0
Gout	1 (33.3)	0	0	0	0	0	0	0	0	0
Hypomagnesemia	1 (33.3)	0	0	0	0	0	0	0	0	0
Pruritus	1 (33.3)	0	0	0	0	0	0	0	0	0

Myalgia	0	0	2 (22.2)	0	0	0	2 (18.2)	0	0	0
Anxiety	0	0	1 (11.1)	0	0	0	0	0	0	0
Dry mouth	0	0	1 (11.1)	0	0	0	0	0	0	0
Hypophosphatemia	0	0	1 (11.1)	0	0	0	0	0	0	0
Nephritis	0	0	1 (11.1)	0	0	0	0	0	0	0
Pain in extremity	0	0	1 (11.1)	0	0	0	0	0	0	0
Vomiting	0	0	1 (11.1)	0	0	0	0	0	2 (6.1)	0
Weight decreased	0	0	1 (11.1)	0	0	0	0	0	0	0
Constipation	0	0	0	0	0	0	0	0	2 (6.1)	0
Hot flush	0	0	0	0	0	0	0	0	2 (6.1)	0
Hypothyroidism	0	0	0	0	0	0	0	0	2 (6.1)	0
Maculopapular rash	0	0	0	0	0	0	1 (9.1)	0	2 (6.1)	0
Dyspnea	0	0	0	0	0	0	0	0	1 (3.0)	1 (3.0)
Lichen planus	0	0	0	0	0	0	0	0	1 (3.0)	1 (3.0)
Malaise	0	0	0	0	0	0	2 (18.2)	0	0	0
Blood bilirubin increased	0	0	0	0	0	0	1 (9.1)	0	0	0
Blood creatinine phosphokinase increased	0	0	0	0	0	0	1 (9.1)	1 (9.1)	0	0
Hepatic enzyme increased	0	0	0	0	0	0	1 (9.1)	1 (9.1)	0	0
Influenza-like illness	0	0	0	0	0	0	1 (9.1)	0	0	0
Muscular weakness	0	0	0	0	0	0	1 (9.1)	0	0	0
Peripheral edema	0	0	0	0	0	0	1 (9.1)	0	0	0

ALT, alanine aminotransferase; AST, aspartate aminotransferase; BCP, blood creatine phosphokinase; GGT, gamma-glutamyltransferase; TRAEs, treatment-related adverse events; WBC, white blood cell.

eTable 4. Serious TRAEs in the BMS-986156 Monotherapy and BMS-986156 Plus Nivolumab Cohorts						
	BMS-986156 (n = 34)			**BMS-986156 + nivolumab (n = 258)**		
	Any grade, n (%)	**Grade 3-4, n (%)**	**Grade 5, n (%)**	**Any grade, n (%)**	**Grade 3-4, n (%)**	**Grade 5, n (%)**
Total patients with event, n (%)	**1 (2.9)**	0	0	**14 (5.4)**	**7 (2.7)**	0
Infusion-related reaction	0	0	0	4 (1.6)	1 (0.4)	0
Chronic obstructive pulmonary disease	0	0	0	1 (0.4)	1 (0.4)	0
Dehydration	0	0	0	1 (0.4)	1 (0.4)	0
Hypocalcemia	0	0	0	1 (0.4)	1 (0.4)	0
Hypokalemia	0	0	0	1 (0.4)	1 (0.4)	0
Increased BCP	0	0	0	1 (0.4)	1 (0.4)	0
Increased hepatic enzyme	0	0	0	1 (0.4)	1 (0.4)	0
Inflammation	0	0	0	1 (0.4)	0	0
Nephritis	0	0	0	1 (0.4)	0	0
Pancreatitis	0	0	0	1 (0.4)	1 (0.4)	0
Pleural effusion	0	0	0	1 (0.4)	0	0
Pyrexia	0	0	0	1 (0.4)	0	0
Type 1 diabetes	0	0	0	1 (0.4)	1 (0.4)	0
Upper abdominal pain	0	0	0	1 (0.4)	1 (0.4)	0
Pneumonitis	1 (2.9)	0	0	0	0	0

BCP, blood creatinine phosphokinase; TRAEs, treatment-related adverse events.

eTable 5. Causes of Death		
	BMS-986156 (n = 34), n (%)	**BMS-986156 + nivolumab (n = 258), n (%)**
Death, n (%)	**27 (79.4)**	**141 (54.7)**
Disease	24 (70.6)	130 (50.4)[a]
Unknown	1 (2.9)	4 (2.8)
Airway obstruction	0	1 (0.4)
Aspiration pneumonia	0	2 (0.8)
Cardiorespiratory arrest	0	1 (0.4)
Euthanasia	1 (2.9)	1 (0.4)
Massive hemorrhage	0	1 (0.4)
Septic shock	0	1 (0.4)

[a]Discrepancy between death events owing to disease and grade 5 disease progression owing to differences in reporting – not all deaths owing to disease progression were coded as grade 5 events.

eTable 6A. Immunogenicity in the BMS-986156 Monotherapy Cohort by Dose

	Escalation: BMS-986156						Expansion: BMS-986156		
Patients, n (%)	**10 mg (n = 4)**	**30 mg (n = 4)**	**100 mg (n = 4)**	**240 mg (n = 5)**	**800 mg (n = 9)**	**All (n = 26)**	**240 mg (n = 3)**	**800 mg (n = 2)**	**All (n = 5)**
Baseline ADA positive	0	0	0	0	0	0	0	0	0
ADA positive	1 (25.0)	0	0	0	0	1 (3.8)	0	0	0
Persistent positive (PP)	0	0	0	0	0	0	0	0	0
Not PP, last sample positive	1 (25.0)	0	0	0	0	1 (3.8)	0	0	0
Other positive	0	0	0	0	0	0	0	0	0
ADA negative	3 (75.0)	4 (100.0)	4 (100.0)	5 (100.0)	9 (100.0)	25 (96.2)	3 (100.0)	2 (100.0)	5 (100.0)

ADA, anti-drug antibody; ADA positive, 4-fold higher than baseline ADA.

eTable 6B. Immunogenicity in the BMS-986156 Plus Nivolumab Cohorts by Dose

	BMS-986156 + nivolumab											
	BMS-986156 30 mg + nivolumab 240 mg		BMS-986156 100 mg + nivolumab 240 mg		BMS-986156 240 mg + nivolumab 240 mg		BMS-986156 800 mg + nivolumab 240 mg		BMS-986156 480 mg + nivolumab 480 mg		All patients	
Patients, n (%)	**BMS-986156 (n = 3)**	**Nivo (n = 3)**	**BMS-986156 (n = 8)**	**Nivo (n = 8)**	**BMS-986156 (n = 185)**	**Nivo (n = 179)**	**BMS-986156 (n = 11)**	**Nivo (n = 11)**	**BMS-986156 (n = 22)**	**Nivo (n = 22)**	**BMS-986156 (n = 229)**	**Nivo (n = 223)**
Baseline ADA positive	0	0	0	1 (12.5)	1 (0.5)	16 (8.9)	0	0	0	0	1 (0.4)	17 (7.6)
ADA positive	1 (33.3)	0	0	0	5 (2.7)	34 (19.0)	0	1 (9.1)	0	0	6 (2.6)	35 (15.7)
Persistent positive (PP)	0	0	0	0	0	1 (0.6)	0	0	0	0	0	1 (0.4)
Not PP, last sample positive	1 (33.3)	0	0	0	3 (1.6)	11 (6.1)	0	1 (9.1)	0	0	4 (1.7)	12 (5.4)
Other positive	0	0	0	0	1 (1.1)	22 (12.3)	0	0	0	0	2 (0.9)	22 (9.9)
ADA negative	2 (66.7)	3 (100.0)	8 (100.0)	8 (100.0)	180 (97.3)	145 (81.0)	11 (100.0)	10 (90.9)	22 (100.0)	22 (100.0)	223 (97.4)	188 (84.3)

ADA, anti-drug antibody; ADA positive, 4-fold higher than baseline ADA; Nivo, nivolumab.

eTable 7. Efficacy – ORR and DCR Per Investigator in the BMS-986156 Plus Nivolumab Combination Cohort by Tumor Type

Expansion BMS-986156 240 mg + nivolumab 240 mg	**ORR, %**	**DCR, %**	**Prior PD-(L)1 therapy, n (%)**
NSCLC (n = 37)	2.7 95% CI (0.1-14.2)	40.5 95% CI (24.8-57.9)	32 (86.5)
Cervical (n = 36)	13.9 95% CI (4.7-29.5)	38.9 95% CI (23.1-56.5)	0
Bladder (n = 28)	10.7 95% CI (2.3-28.2)	32.1 95% CI (15.9-52.4)	6 (20.7)[a]
Head and neck (n = 35)	14.3 95% CI (4.8-30.3)	37.1 95% CI (21.5-55.1)	2 (5.6)[b]
Ovarian (n = 37)	2.7 95% CI (0.1-14.2)	51.4 95% CI (34.4-68.1)	2 (5.4)
HCC (n = 12)	8.3 95% CI (0.2-38.5)	41.7 95% CI (15.2-72.3)	1 (8.3)

DCR, disease control rate; HCC, hepatocellular carcinoma; NSCLC, non-small cell lung cancer; ORR, objective response rate; PD, programmed death receptor.
[a]Out of 29 patients enrolled with bladder cancer. ORR and DCR were evaluable for only 28, as shown in the table.
[b]Out of 36 patients enrolled with head and neck cancer. ORR and DCR were evaluable for only 35, as shown in the table.