

# Development Pipeline Progress Status

**January 31, 2022**

# Cautionary Notes

***Forecasts and other forward-looking statements included in this document are based on information currently available and certain assumptions that the Company deems reasonable.***

***Actual performance and other results may differ significantly due to various factors. Such factors include, but are not limited to:***

- ( i ) failures in new product development***
- ( ii ) changes in general economic conditions due to reform of medical insurance system***
- ( iii ) failures in obtaining the expected results due to effects of competing products or generic drugs***
- ( iv ) infringements of the Company's intellectual property rights by third parties***
- ( v ) stagnation of product supply from the delay in production due to natural disasters, fires and so on***
- ( vi ) onset of new side effect of post-licensure medical product***
- and, ( vii ) currency exchange rate fluctuations and interest rate trend.***

***Information about pharmaceutical products (including products currently in development) included in this document is not intended to constitute an advertisement of medical advice.***

# Plan for Submissions in Japan

OPDIVO

Non-OPDIVO  
Oncology

Non-  
Oncology

OPDIVO  
M=Mono  
C=Combo

<p>{1L-Gastric cancer} with Chemo (C) ATTRACTION-4 May 2020</p>			<p>{Adjuvant-Gastric cancer} with Chemo (C) ATTRACTION-5</p>
<p>{1L-RCC} with Cabozantinib (C) CheckMate-9ER Oct 2020</p>			<p>{1L-Urothelial cancer} with YERVOY (C) CheckMate-901</p>
<p>{1L-Malignant pleural mesothelioma} with YERVOY (C) CheckMate-743 Oct 2020</p>			<p>{Adjuvant-RCC} with YERVOY (C) CheckMate-914</p>
<p>{1L-Gastric cancer} with Chemo (C) CheckMate-649 Dec 2020</p>			<p>{Neoadjuvant-NSCLC} with Chemo (C) CheckMate-816</p>
<p>{Hodgkin's lymphoma, pediatric} investigator-initiated trial (M) Jan 2021</p>	<p>{Cancer of unknown primary} investigator-initiated trial (M) Apr 2021</p>		<p>{Adjuvant- Hepatocellular carcinoma} (M) CheckMate-9DX</p>
<p>{Adjuvant-Esophageal cancer} (M) CheckMate-577 Feb 2021</p>	<p>{1L-NSCLC} with Chemo and AVASTIN (C) ONO-4538-52 Jun 2021 (Revision of labeling)</p>		<p>{Biliary tract cancer} (M) ONO-4538-91</p>
<p>{Adjuvant-Urothelial cancer} (M) CheckMate-274 Mar 2021</p>	<p>{1L-Esophageal cancer} with YERVOY / with Chemo (C) CheckMate-648 Sep 2021</p>	<p>ONOACT&lt;Pediatric&gt; {Tachyarrhythmia in low cardiac function} (Non-OPDIVO Oncology) Oct 2021</p>	<p>{1L-Urothelial cancer} with Chemo (C) CheckMate-901</p>
<p>2020 (results)</p>	<p>2021 (1H)</p>	<p>2021 (2H)</p>	<p>2022</p>

As of Jan 26, 2022

# Development status of OPDIVO (1)

As of Jan 26, 2022

Target disease	Line of Therapy	Treatment	Phase				
			Japan	Korea	Taiwan	US	EU
Melanoma	Adjuvant · 1st · 2nd	Monotherapy, with Ipi (1 <sup>st</sup> line only)	Approved	Approved	Approved	Approved	Approved
Non-small cell lung cancer	Neo-adjuvant	with Chemo	III	III	III	III	III
	1st	with Ipi	Approved	Approved	Approved	Approved	—
		with Ipi + Chemo	Approved	Approved	Approved	Approved	Approved
		with Chemo	Approved	—	—	—	—
		with Chemo (NSQ)	Revision of labeling	III	Approved	—	—
2nd	Monotherapy	Approved	Approved	Approved	Approved	Approved	
Renal cell carcinoma	Adjuvant	with Ipi	III	—	—	III	III
	1st	with Ipi	Approved	Approved	Approved	Approved	Approved
		with TKI	Approved	III	III	Approved	Approved
		with Ipi + TKI	—	III	III	III	III
	2nd	Monotherapy	Approved	Approved	Approved	Approved	Approved
Hodgkin's lymphoma	Relapsed /Refractory	with Brentuximab	III	—	—	III	—
		Monotherapy	Approved	Approved	Approved	Approved	Approved
Head and neck cancer	2nd	Monotherapy	Approved	Approved	Approved	Approved	Approved
Malignant pleural mesothelioma	1st	with Ipi	Approved	Approved	Approved	Approved	Approved
	SOC refractory	Monotherapy	Approved	—	—	—	—

Red: Update after May 2021

# Development status of OPDIVO (2)

As of Jan 26, 2022

Target disease	Line of Therapy	Treatment	Phase				
			Japan	Korea	Taiwan	US	EU
Gastric cancer	Adjuvant	with Chemo	III	III	III	—	—
	1st	with Chemo	Approved	Approved	Approved	Approved	Approved
		with Ipi + Chemo	III	III	III	—	—
	3rd	Monotherapy	Approved	Approved	Approved	—	—
Esophageal cancer	Adjuvant	Monotherapy	Approved	III	Approved	Approved	Approved
	1st	with Ipi, with Chemo	Filed	III	III	Filed	Filed
	2nd	Monotherapy	Approved	Approved	Approved	Approved	Approved
Colorectal cancer	1st	with Chemo	II / III	—	—	II / III	II / III
	MSI-H / dMMR (1st)	with Ipi	III	—	—	III	III
	MSI-H / dMMR (3rd)	Monotherapy	Approved	—	Approved	Approved	-
		with Ipi	Approved	—	Approved	Approved	Approved*
Hepatocellular carcinoma	Adjuvant	Monotherapy	III	III	III	III	III
	1st	with Ipi	III	III	III	III	III
	2nd	Monotherapy, with Ipi	II	II	Approved**	Approved**	II
Biliary tract cancer	2nd	Monotherapy	II	—	—	—	—

Red: Update after May 2021

\* 2nd line  
 \*\* With Ipi (US),  
 Monotherapy only (Taiwan)

# Development status of OPDIVO (3)

As of Jan 26, 2022

Target disease	Line of Therapy	Treatment	Phase				
			Japan	Korea	Taiwan	US	EU
Urothelial cancer / Bladder cancer	Adjuvant /Neo-adjuvant	with IDO1 inhibitor + Chemo, with Chemo	III	III	III	III	III
	Adjuvant	Monotherapy	Filed	III	III	Approved	Filed
	1st	with Ipi, with Chemo	III	III	III	III	III
	2nd	Monotherapy	II	Approved	Approved	Approved	Approved
Ovarian cancer	1st	with Rucaparib	III	III	III	III	III
castration-resistant prostate cancer	1st or 2nd	with Chemo	III	III	III	III	III
Pancreatic cancer	1st	with Chemo	II	II	II	—	—
Virus positive / negative solid carcinoma	Neo-adjuvant, 1st~3rd	Monotherapy, with Ipi (1st~3rd only)	I / II	I / II	I / II	I / II	I / II
Cancer of unknown primary	—	Monotherapy	Approved	—	—	—	—
Dosage and Administration	240 mg (every 2 weeks)		Approved	Approved	III	Approved	Approved
	360 mg (every 3 weeks)		Approved	Approved	Approved	Approved	Approved
	480 mg (every 4 weeks)		Approved	Approved	III	Approved	Approved

Red: Update after May 2021

# Clinical trials in combination therapy OPDIVO & other Immuno-Oncology compounds<sup>①</sup>

As of Jan 26, 2022

Development code (Generic name) Pharmacological action	Cancer type	Japan	US/EU	KR/TW
ONO-7701 (Linrodostat) IDO1 inhibitor	Bladder cancer	III	III	III
ONO-4686 Anti-TIGIT antibody	Solid tumor	I / II	I / II	-
ONO-7807 Anti-TIM-3 antibody	Solid tumor	I / II	I / II	-
ONO-4482 (Relatlimab) Anti-LAG-3 antibody	Melanoma	I / II	Filed	-
ONO-4578 PG receptor (EP4) antagonist	Solid tumor, Gastric cancer	I	I / II	-
	Colorectal cancer	I	-	-
	Pancreatic cancer	I	-	-
	Non-small cell lung cancer	I	-	-
ONO-7475 Axl/Mer inhibitor	Solid tumor	I	-	-

Red: Update after May 2021

# Clinical trials in combination therapy

## OPDIVO & other Immuno-Oncology compounds<sup>②</sup>

As of Jan 26, 2022

Development code (Generic name) Pharmacological action	Cancer type	Japan	US/EU	KR/TW
ONO-7911 (Bempegaldesleukin) PEGylated IL-2	Solid tumor	I	I / II	-
	Melanoma	-	III	-
	Renal cell carcinoma	-	III	-
	Bladder cancer	-	III	-
ONO-7913 (Magrolimab) Anti-CD47 antibody	Pancreatic cancer	I	-	-
	Colorectal cancer	I	-	-
ONO-7119 (Atamparib) PARP7 inhibitor	Solid tumor	I	-	-
ONO-7122 TGF- $\beta$ inhibitor	Solid tumor	I	-	-
ONO-7914 STING agonist	Solid tumor	I	-	-

Red: Update after May 2021



# Development pipeline in Japan (Oncology area other than OPDIVO)

As of Jan 26, 2022

Product name/ Development code (Generic name)	Target indication	Pharmacological action
<b>【Phase III】</b>		
ONO-7913 (Magrolimab)	TP53-mutant Acute myeloid leukemia	Anti-CD47 antibody
<b>【Phase II】</b>		
BRAFTOVI (Encorafenib)	BRAF-mutant thyroid cancer	BRAF inhibitor
MEKTOVI (Binimetinib)	BRAF-mutant thyroid cancer	MEK inhibitor
<b>【Phase I】</b>		
ONO-4578	Solid tumor, Gastric cancer *	PG receptor (EP4) antagonist
	Colorectal cancer *	
	Pancreatic cancer *	
	Non-small cell lung cancer *	
	Hormone receptor-positive, HER2-negative breast cancer	
ONO-7475	Solid tumor *	Axl / Mer inhibitor
	EGFR mutation-positive non-small cell lung cancer	
ONO-7913 (Magrolimab)	Solid tumor	Anti-CD47 antibody
	Myelodysplastic syndrome	
	Pancreatic cancer *	
	Colorectal cancer *	
ONO-7912 (Devimistat)	Pancreatic cancer	Cancer metabolism inhibitor

Red: Update after May 2021

\* Combination with Opdivo.



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# Development pipeline in Japan (Non-oncology)

As of Jan 26, 2022

Product name/ Development code (Generic name)	Target indication	Pharmacological action
<b>【Filed】</b>		
<b>ONOACT</b> (Landiolol hydrochloride)	<b>Tachyarrhythmia in low cardiac function &lt;Pediatric&gt;</b>	<b>Short-active selective <math>\beta_1</math> blocker</b>
<b>【Phase III】</b>		
<b>ONO-2017 (Cenobamate)</b>	<b>Primary generalized tonic-clonic seizures</b>	<b>Inhibition of voltage-gated sodium currents/positive allosteric modulator of GABA<sub>A</sub> ion channel</b>
	<b>Partial-onset seizures</b>	
<b>【Phase II】</b>		
<b>JOYCLU</b> (Diclofenac etalhyaluronate)	<b>Enthesopathy</b>	<b>Hyaluronic acid-NSAID</b>
<b>VELEXBRU</b> (ONO-4059:Tirabrutinib)	<b>Pemphigus</b>	<b>BTK inhibitor</b>
<b>ONO-2910</b>	<b>Diabetic polyneuropathy</b>	<b>Schwann cell differentiation promoter</b>
<b>【Phase I】</b>		
<b>VELEXBRU</b> (ONO-4059:Tirabrutinib)	<b>Generalized scleroderma</b>	<b>BTK inhibitor</b>
<b>ONO-4685</b>	<b>Autoimmune disease</b>	<b>PD-1 × CD3 bispecific antibody</b>
<b>ONO-2909</b>	<b>Narcolepsy</b>	<b>PG receptor (DP1) antagonist</b>
<b>ONO-2808</b>	<b>Neurodegenerative diseases</b>	<b>S1P5 receptor agonist</b>

Red: Update after May 2021

# Global development projects (Other than OPDIVO)

As of Jan 26, 2022

Product name/ Development code (Generic name)	Target indication	Pharmacological action	Area
<b>【Approved】</b>			
<b>BRAFTOVI (Encorafenib)</b>	<b>BRAF-mutant colorectal cancer</b>	<b>BRAF inhibitor</b>	<b>KR</b>
<b>VELEXBRU (ONO-4059:Tirabrutinib)</b>	<b>Primary central nervous system lymphoma</b>	<b>BTK inhibitor</b>	<b>KR</b>
<b>【Phase III】</b>			
<b>ONO-7912 (Devimistat)</b>	<b>Pancreatic cancer</b>	<b>Cancer metabolism inhibitor</b>	<b>KR</b>
	<b>Acute myeloid leukemia</b>		<b>KR</b>
<b>ONO-7913 (Magrolimab)</b>	<b>Acute myeloid leukemia</b>	<b>Anti-CD47 antibody</b>	<b>KR · TW</b>
<b>【Phase II】</b>			
<b>ONO-4059 (Tirabrutinib)</b>	<b>Primary central nervous system lymphoma</b>	<b>BTK inhibitor</b>	<b>US</b>
<b>【Phase I / II】</b>			
<b>ONO-7475</b>	<b>Acute leukemia</b>	<b>Axl / Mer inhibitor</b>	<b>US</b>
<b>【Phase I】</b>			
<b>ONO-7684</b>	<b>Thrombosis</b>	<b>FXIa inhibitor</b>	<b>EU</b>
<b>ONO-2808</b>	<b>Neurodegenerative disease</b>	<b>S1P5 receptor agonist</b>	<b>EU</b>
<b>ONO-4685</b>	<b>T-cell lymphoma</b>	<b>PD-1 x CD3 bispecific antibody</b>	<b>US</b>
	<b>Autoimmune disease</b>		<b>EU</b>

Red: Update after May 2021



**ONO PHARMACEUTICAL CO.,LTD.**

*Dedicated to the Fight against Disease and Pain*