

# Development Pipeline Progress Status



ONO PHARMACEUTICAL CO.,LTD.

# Development status of ONO-4538 (nivolumab) ①

Target disease	JAPAN	US/EU	KR/TW
Melanoma (2 <sup>nd</sup> ~)	Launched	Launched	Launched (KR) Approved (TW)
Melanoma (1 <sup>st</sup> )	Approved	Approved	Approved
Non-small cell lung cancer (2 <sup>nd</sup> ~)	Approved	Approved	Approved *)
Non-small cell lung cancer (1 <sup>st</sup> )	III	III	III
Renal cell carcinoma (2 <sup>nd</sup> ~)	Filing	Approved	Filing (TW)
Renal cell carcinoma (1 <sup>st</sup> ) (combination with Ipilimumab)	III	III	III
<b>Hodgkin lymphoma</b>	Filing	Filing	-
Head and neck carcinoma	III	III	III
Gastric cancer	III	I / II	III
Small cell lung cancer	III	III	III
Hepatocellular carcinoma	III	III	III
Esophageal cancer	III	III	III
Glioblastoma	III	III	-
Urothelial cancer	III	III	III

\*) : Only squamous NSCLC was approved in Taiwan, and non-squamous NSCLC is still under filing.

Red : Hematologic malignancies    Yellow : Change from the announcement in May 2015

# Development status of ONO-4538 (nivolumab) ②

Target Disease	JAPAN	US/EU	KR/TW
Diffuse large B cell lymphoma (Non-Hodgkin lymphoma)	-	II	-
Follicular lymphoma (Non-Hodgkin lymphoma)	-	II	-
Ovarian cancer	II	-	-
Virus positive, negative solid carcinoma	I / II	I / II	I / II
Colon cancer	-	I / II	-
Pancreatic cancer, Gastric cancer, Small cell lung cancer, Triple negative breast cancer, Urothelial cancer, Ovarian cancer	-	I / II	-
Malignant pleural mesothelioma	II	-	-
Cervix carcinoma, uterine body cancer, soft tissue sarcoma	II	-	-
Bile duct carcinoma	I	-	-
Blood cancer (T-cell lymphoma, Multiple myeloma, Chronic leukemia, etc. )	-	I	-
Chronic myelogenous leukemia	-	I	-

Red : Hematologic malignancies

Yellow : Change from the announcement in May 2015

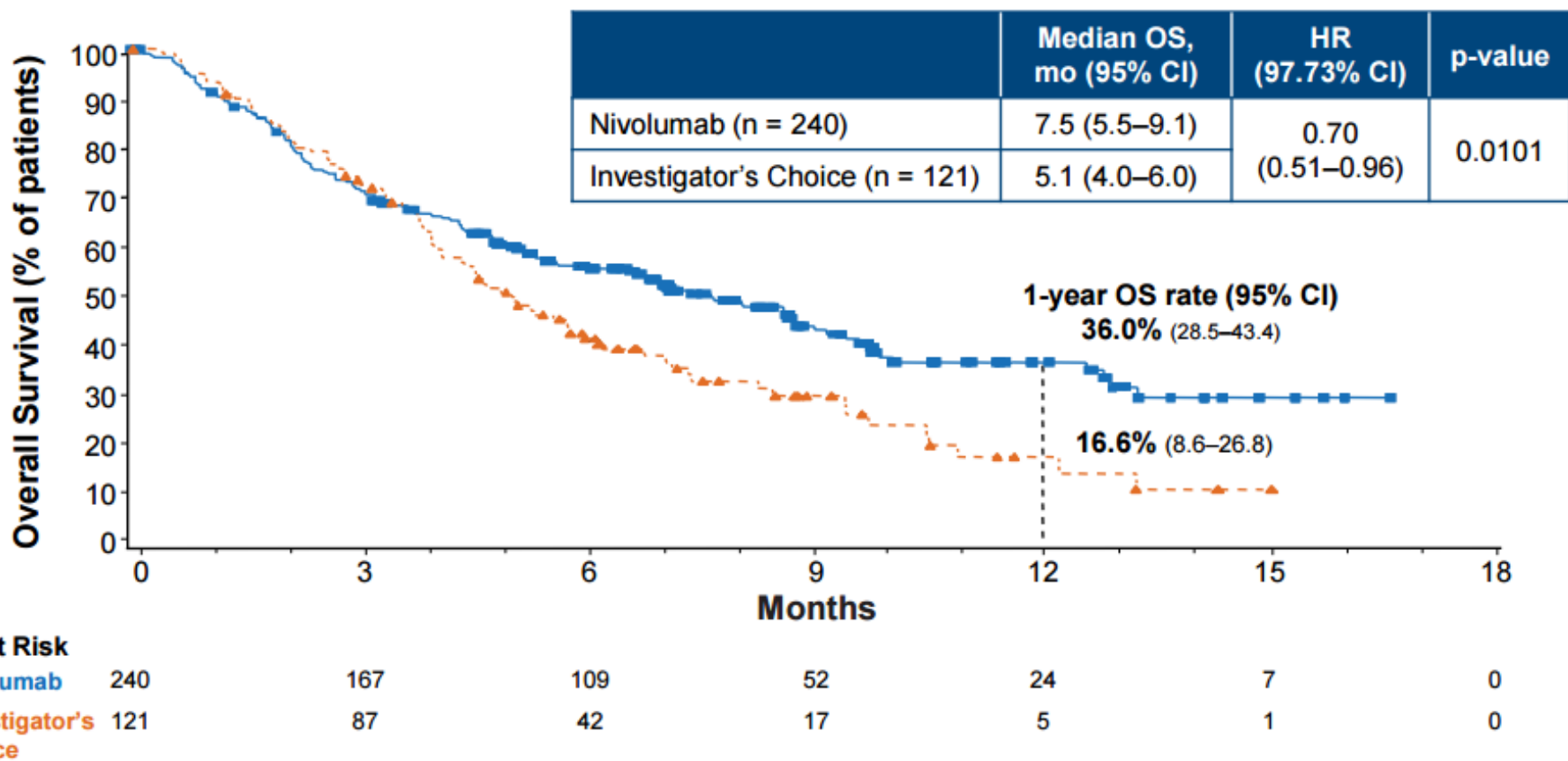
# Clinical trials in combination therapy (OPDIVO & other I-O compounds)

Combination therapy	Cancer type	Japan	US/EU	KR/TW
Nivolumab+Ipilimuma	Renal cell carcinoma	III	III	III
	Melanoma	II	Launched (US) Filing (EU)	-
	NSCLC	III	III	III
	Small cell lung cancer	III	III	III
	Head and neck cancer	-	III	-
Nivolumab+Lirilumab (Anti-KIR antibody)	Solid tumor	-	I	-
Nivolumab+BMS-986016 (Anti-LAG-3 antibody)	Solid tumor	-	I	-
Nivolumab+Urelumab (CD137 receptor agonist)	Solid tumor, Non-Hodgkin lymphoma	I	I / II	-
Nivolumab+Mogamulizumab (Anti-CCR4 antibody)	Solid tumor	I	I	-

Yellow : Change from the announcement in May 2015

# CheckMate 141 Study (Head and neck carcinoma)

## Overall Survival



# Overseas Clinical Study Data on Opdivo to be presented in ASCO 2016 (17 presentations) ①

## **Melanoma**

Overall survival in patients with advanced melanoma (MEL) who discontinued treatment with nivolumab (NIVO) plus ipilimumab (IPI) due to toxicity in a phase II trial (Checkmate 069)

Updated Results From A Phase III Trial Of Nivolumab Combined With Ipilimumab In Treatment-naïve Patients With Advanced Melanoma (Checkmate 067)

## **Non-small cell lung cancer (NSCLC)**

Comparison of Nivolumab with docetaxel in patients with advanced NSCLC: Analysis of 2-year follow-up updated data and exploratory cytokine profile in Checkmate 017 and 057

Lung Cancer Symptom Scale (LCSS) as a Marker of Treatment (tx) Benefit with Nivolumab (nivo) vs Docetaxel (doc) in Patients (pts) with Advanced (adv) Non-squamous (NSQ) NSCLC from CheckMate 057

Estimated cost in management of treatment related adverse events (TRAEs) with Nivolumab and docetaxel in NSCLC in Phase II clinical studies (Checkmate 017 and 057)

Checkmate 012: Safety and Efficacy of First-line Nivolumab and Ipilimumab in Advanced NSCLC

## **Renal cell cancer**

Long-term overall survival in patients with previously treated advanced renal cell cancer in Phase I and II studies

Quality of Life and Overall Survival in Patients With Advanced Clear-Cell Renal Cell Carcinoma Treated With Nivolumab versus Everolimus in the Phase III CheckMate 025 Study

Co-relation with objective response and overall survival of everolimus versus Nivolumab in advanced renal cell carcinoma: Results of Phase III Checkmate 025 study

## **Head and neck cancer**

Further Evaluations of Nivolumab versus Investigator's Choice Chemotherapy for Recurrent or Metastatic (R/M) Squamous Cell Carcinoma of the Head and Neck: CheckMate-141

# Overseas Clinical Study Data on Opdivo to be presented in ASCO 2016 (17 presentations) ②

## **Hodgkin lymphoma**

Checkmate 205 study: Phase II study on Nivolumab in patients with classical Hodgkin lymphoma after prior therapy of who have received autologous hematopoietic stem cell transplant and brentuximab vedotin

## **Hepatocellular carcinoma**

Safety and anti-tumor activity of Nivolumab in patients with advanced hepatocellular carcinoma – Interim analysis of dosage expansion of Checkmate 040 study (Phase I/II study)

Phase I/II clinical study to evaluate safety and anti-tumor activity of Nivolumab in patients with advanced hepatocellular carcinoma – Interim analysis of dose escalation study (Checkmate-040 study)

## **Urothelial cancer**

Efficacy and safety of nivolumab monotherapy in metastatic urothelial cancer (mUC): Results from the phase I/II CheckMate 032 study

## **Small cell lung cancer**

CheckMate 032: Nivolumab Alone or in Combination with Ipilimumab for the Treatment of Recurrent Small Cell Lung Cancer

## **Gastric cancer**

CheckMate-032: Phase I/II, Open-Label Study of Safety and Activity of Nivolumab Alone or With Ipilimumab in Advanced and Metastatic Gastric Cancer

## **Colon cancer**

Nivolumab ± Ipilimumab in Treatment of Patients With Metastatic Colorectal Cancer With and Without High Microsatellite Instability (MSI-H): CheckMate-142 Interim Results

# Major development pipeline in Japan

Product name/its candidate /development code	Target indication	Japan
Rivastach Patch (Additional dosing regimen)	Dementia of Alzheimer's type	Approved
Proemend (Pediatric)	Chemotherapy-induced nausea and vomiting	Approved
Orencia SC (Additional formulation)	Rheumatoid arthritis (Auto-injector)	Approved
ONO-7057 (carfilzomib)	Multiple myeloma	Filing
ONO-5163	Secondary hyperparathyroidism	Filing
Orencia IV (Pediatric)	Juvenile idiopathic arthritis	III
Orencia SC (Additional indication)	Lupus nephritis	III
ONO-1162	Chronic heart failure	III
Onoact (Pediatric)	Tachyarrhythmia in low cardiac function	II / III
Onoact IV	Ventricular arrhythmia	II / III
ONO-5371	Pheochromocytoma	I / II

\*Most advantage stage is shown.

Yellow : Change from the announcement in May 2015