

# Partnering Activity Update

**November 2, 2021**

# 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.*

# Partnering Activity (2010~) (1)

As of October 28, 2021

Date	Product name or Code number (Generic name)	Indication (MOA)	Phase (JP)	Phase (Overseas)	Partner (Agreements)
Sep 2010	KYPROLIS (Carfilzomib)	Multiple Myeloma (Proteasome inhibitor)	L	L	Amgen, USA (in-license/JP)
Sep 2011	CORALAN (Ivabradine)	Chronic Heart Failure (HCN channel blocker)	L	L	Servier, France (in-license/JP)
	PARSABIV (Etelcalcetide)	Secondary Hyperparathyroidism (Calcium sensing receptor agonist)	L	L	Amgen, USA (in-license/JP)
	OPDIVO (Nivolumab)	Melanoma, NSCLC, RCC, Hodgkin's Lymphoma, H&N cancer, Gastric cancer, Malignant pleural mesothelioma, Colorectal cancer (MSI-H), Esophageal cancer (Anti-PD-1 mAb)	L	L	<a href="#">BMS, USA</a> (out-license/ except JP, KR & TW)
	ORENCIA (Abatacept)	Rheumatoid Arthritis Juvenile Idiopathic Arthritis (T cell activation inhibitor)	L	L	<a href="#">BMS, USA</a> (in-license/JP)
Apr 2013	ONGENTYS (Opicapone)	Wearing-off phenomenon in Parkinson's Disease (COMT inhibitor)	L	L	Bial, Portugal (in-license/JP)
Oct 2013	DEMSEER (Metyrosine)	Status of Catecholamine Excess Secretion in Pheochromocytoma (Tyrosine hydroxylase inhibitor)	L	L	Bausch Health, USA (in-license/JP)
Dec 2013	FORXIGA (Dapagliflozin)	Type 2 Diabetes, Type 1 Diabetes, Chronic Heart Failure, Chronic Kidney Disease (SGLT-2 inhibitor)	L	L	<a href="#">AstraZeneca, UK</a> (in-license/JP)

# Partnering Activity (2010~) (2)

As of October 28, 2021

Date	Product name or Code number (Generic name)	Indication (MOA)	Phase (JP)	Phase (Overseas)	Partner (Agreements)
Jul 2014	OPDIVO (Nivolumab)	Melanoma, NSCLC, RCC, Hodgkin's Lymphoma, H&N cancer, Gastric cancer, Malignant pleural mesothelioma, Colorectal cancer (MSI-H), Esophageal cancer (Anti-PD-1 mAb)	L	L	<a href="#">BMS, USA</a> (out-license/ JP, KR & TW)
	YERVOY (Ipilimumab)	Melanoma, RCC, Colorectal cancer (MSI-H), NSCLC, Malignant pleural mesothelioma (Anti-CTLA-4 mAb)	L	L	<a href="#">BMS, USA</a> (in-license/ JP, KR & TW)
	ONO-4482 (Relatlimab)	Melanoma (Anti-LAG-3 mAb)	I/II	Filing	
	ONO-4686 BMS-986207	Solid Tumors (Anti-TIGIT mAb)	I/II	I/II	
	ONO-7701 (Linrodostat)	Bladder cancer (IDO1 inhibitor)	III	III	
	ONO-7807 BMS-986258	Solid Tumors (Anti-TIM-3 mAb)	I/II	I/II	
	ONO-7911 (Bempegaldesleukin)	Solid Tumors (PEGylated IL-2)	I	I/II	
		Melanoma, RCC, Bladder cancer (PEGylated IL-2)	—	III	

# Partnering Activity (2010~) (3)

As of October 28, 2021

Date	Product name or Code number (Generic name)	Indication (MOA)	Phase (JP)	Phase (Overseas)	Partner (Agreements)
Jul 2014	OPALMON (Limaprost $\alpha$ -CD)	Lumber Spinal Canal Stenosis (oral PGE1 analogue)	L	L	Meiji Seika Pharma, Japan (out-license/THA)
Mar 2016	ONO-9054 (Sepetaprost)	Glaucoma Ocular Hypertension (FP/EP3 dual receptor agonist)	II	II	Santen Pharmaceutical, Japan (out-license/Global)
May 2017	MEKTOVI (Binimetinib) BRAFTOVI (Encorafenib)	BRAF-mutant Melanoma (MEK inhibitor · BRAF inhibitor)	L	L	Pfizer, USA (in-license/JP & KR)
		BRAF-mutant Colorectal cancer (MEK inhibitor · BRAF inhibitor)	L	L (BRAFTOVI)	
Aug 2017	JOYCLU (Diclofenac etalhyaluronate)	Osteoarthritis (Hip joint, Knee joint) (Combined drug of hyaluronic acid and NSAID)	L	II	Seikagaku, Japan (in-license/JP)
		Enthesopathy (Combined drug of hyaluronic acid and NSAID)	II	—	
Jun 2019	ONO-7912 (Devimistat)	Pancreatic cancer Acute Myeloid Leukemia (Cancer metabolism inhibitor)	I	III	Rafael Pharmaceuticals, USA (in-license/JP, KR, TW & ASEAN)

# Partnering Activity (2010~) (4)

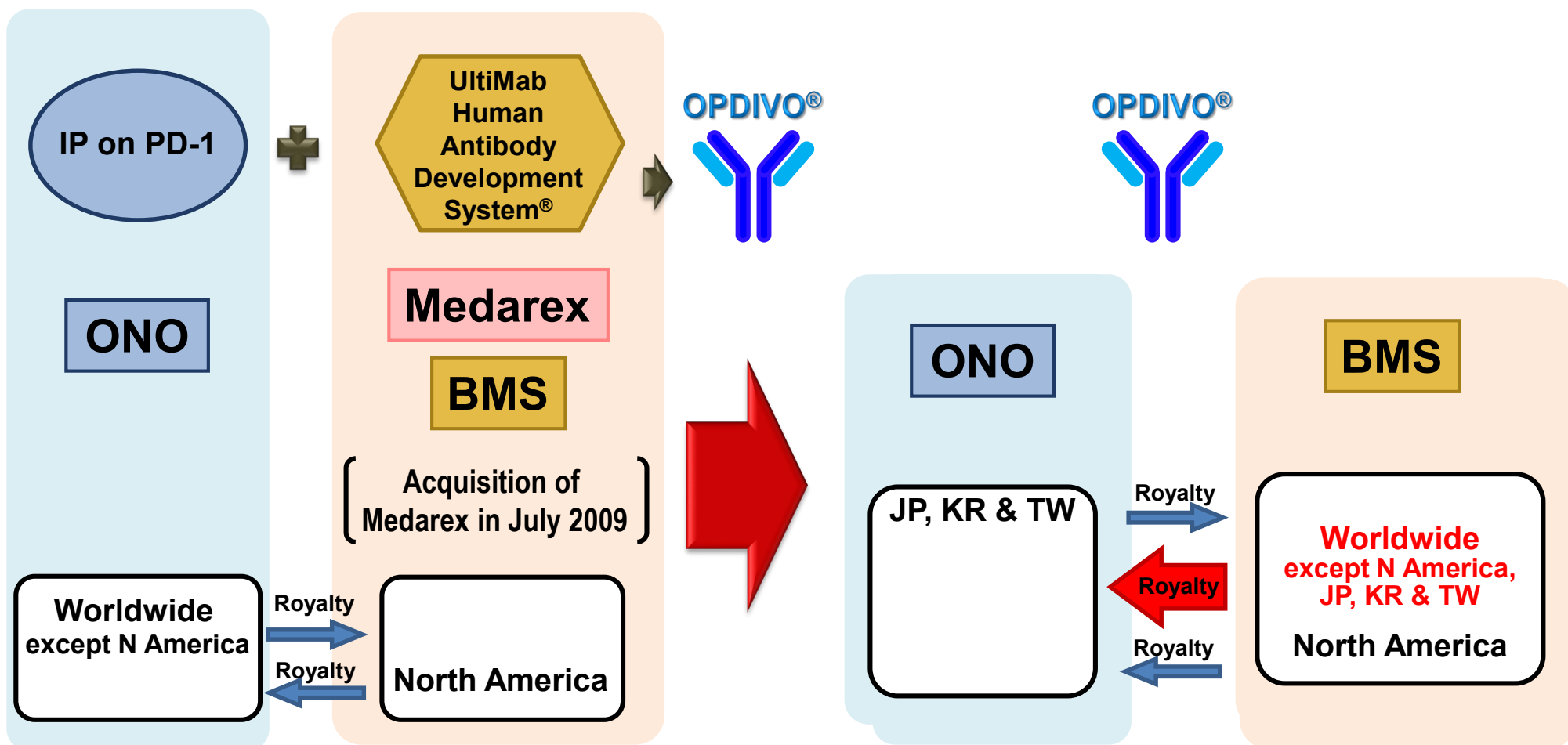
As of October 28, 2021

Date	Product name or Code number (Generic name)	Indication (MOA)	Phase (JP)	Phase (Overseas)	Partner (Agreements)
Jul 2019	ONO-7913 (Magrolimab)	Non-Hodgkin's Lymphoma Colorectal cancer (Anti-CD47 mAb)	I	II	Gilead Sciences, USA (in-license/JP, KR, TW & ASEAN)
		Myelodysplastic syndromes (Anti-CD47 mAb)	I	III	
		Acute Myeloid Leukemia (Anti-CD47 mAb)	—	III	
		Solid Tumors (Anti-CD47 mAb)	I	I	
Oct 2020	ONO-2017 (Cenobamate)	Partial-onset seizures (voltage-gated sodium currents inhibitor, $\gamma$ -aminobutyric acid (GABA <sub>A</sub> ) ion channel modulator)	III	L	SK Biopharmaceuticals, Korea (in-license/JP)
Dec 2020	ONO-7018 (CTX-177)	Malignancies of lymphocytes (mucosa-associated lymphoid tissue lymphoma translocation protein 1 (MALT1) inhibitor)	Pre-clinical	Pre-clinical	Chordia Therapeutics, Japan (in-license/Global)
Feb 2021	ONO-7119 (RBN-2397)	Solid Tumors (Poly ADP-ribose polymerase 7 (PARP7) inhibitor)	I	I	Ribon Therapeutics, USA (in-license/JP, KR, TW & ASEAN)

# Collaboration with BMS for OPDIVO®

Start collaboration  
in May 2005

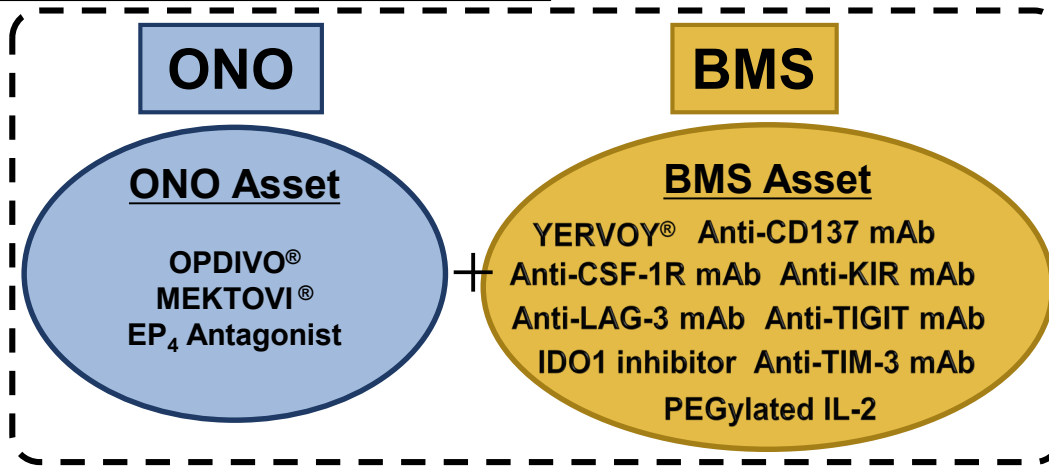
Expand collaboration  
in Sep 2011



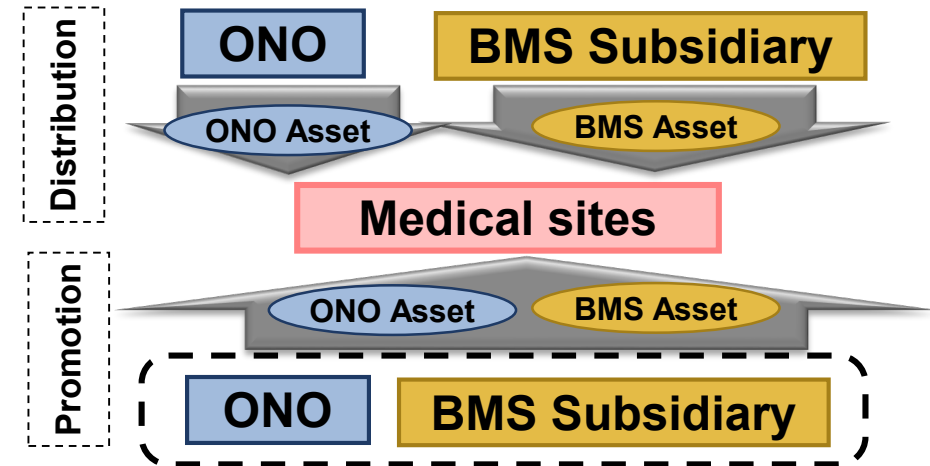
# Strategic Alliance with BMS in JP, KR & TW

- To Strengthen Immuno-oncology Portfolio
- To Accelerate Combination Therapies

## Co-development

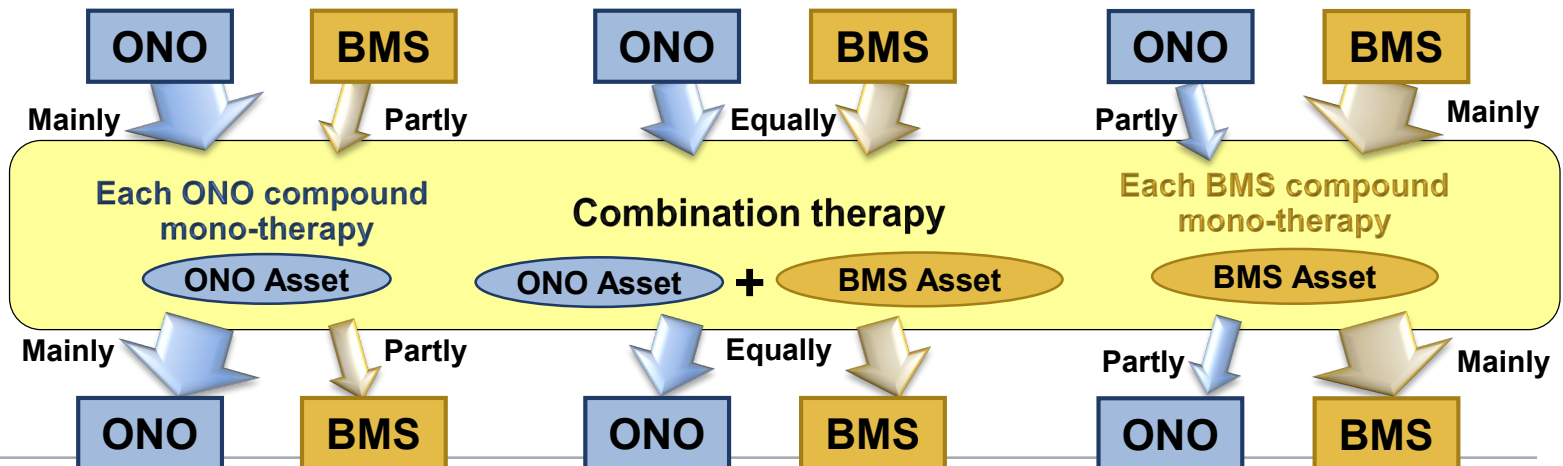


## Co-promotion



Development cost share

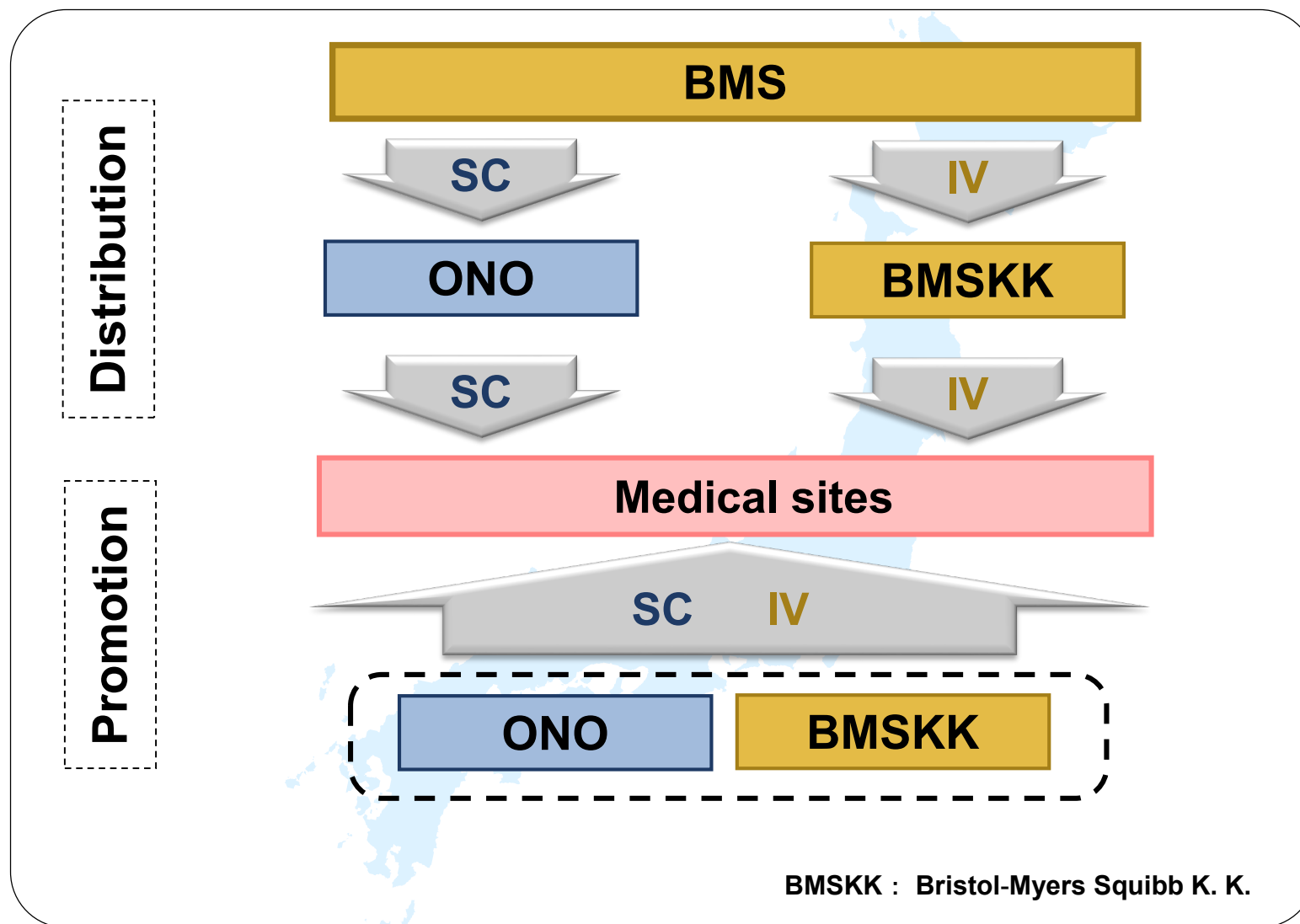
Profit/loss allocation





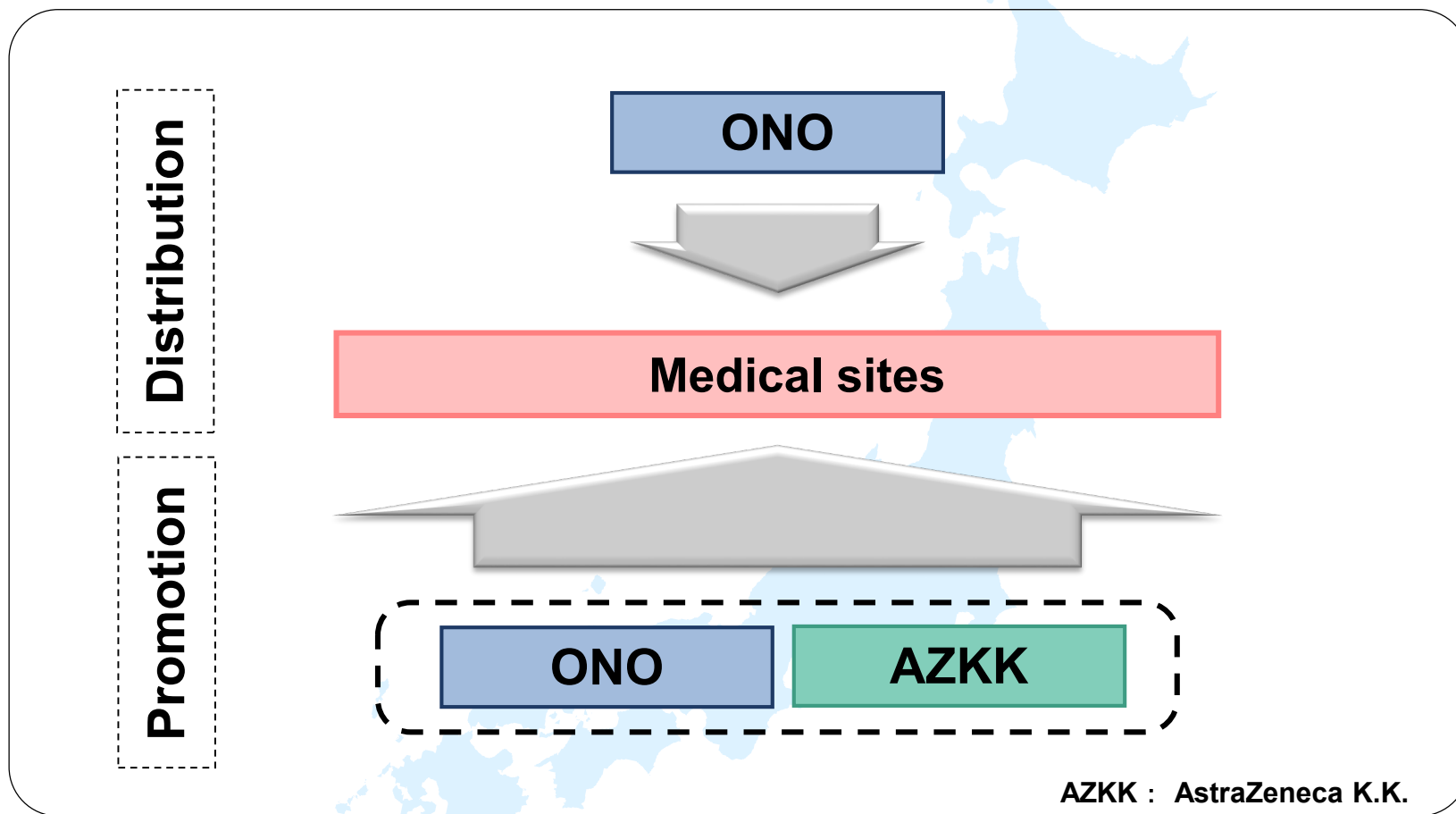
# Collaboration with BMS for ORENZIA®

- Novel Biologic Inhibiting Upstream Inflammation in RA



# Collaboration with AstraZeneca for FORXIGA®

- The First SGLT-2 Inhibitor in the World for Type-2 Diabetes
- In 2019, additional approval for Type-1 diabetes in Japan
- In 2020, additional approval for Chronic Heart Failure in Japan
- In 2021, additional approval for Chronic Kidney Disease in Japan





**ONO PHARMACEUTICAL CO.,LTD.**

Dedicated to the Fight against Disease and Pain