










# R&D Pipeline

# KYOWA KIRIN










Filed • Approved



 antibody  protein  small molecule

As of Jun. 30, 2018

Area		Code Name Generic Name Formulation	Mechanism of Action	Indication	Stage	In-House or Licensed	Remarks
Nephrology		<b>KRN321</b> <b>Darbepoetin Alfa</b> <b>Injection</b>	Long-Acting Erythropoiesis Stimulating Agent	Renal Anemia (on Dialysis)	NDA in preparation in CN	Kirin-Amgen	
				Renal Anemia	Filed in ID		
		<b>KRN1493</b> <b>Cinacalcet</b> <b>Hydrochloride</b> <b>Oral</b>	Calcium Receptor Agonist	Secondary Hyperparathyroidism	Approved in BN	Licensed from Shire-NPS	
Oncology		<b>KW-0761</b> <b>Mogamulizumab</b> <b>Injection</b>	Anti-CCR4 Humanized Antibody	Cutaneous T-cell Lymphoma	Filed in US Filed in EU Filed in JP	In-House	POTELLIGENT®  Additional Indication, Dosage and Administration
Immunology/A llergy		<b>KHK4827</b> <b>Brodalumab</b> <b>Injection</b>	Anti-IL-17 Receptor A Fully Human Antibody	Psoriasis	Approved in TW	Kirin-Amgen	
					Filed in TH		
					Filed in SG		
					Filed in MY		
		<b>KW-6002</b> <b>Istradefylline</b> <b>Oral</b>	Adenosine A <sub>2A</sub> Receptor Antagonist	Parkinson's Disease	NDA in preparation in US	In-House	
Other		© <b>KRN23</b> <b>Burosumab</b> <b>Injection</b>	Anti-FGF23 Fully Human Antibody	X-linked Hypophosphatemia (XLH)	Approved in US Filed in CA	In-House	Human Antibody-Producing Technology Jointly Developed with Ultragenyx in US and EU

## Phase II, Phase III




Area		Code Name Generic Name Formulation	Mechanism of Action	Indication	Stage	In-House or Licensed	Remarks		
Nephrology		© <b>RTA 402</b> <b>Bardoxolone Methyl</b> <b>Oral</b>	Antioxidant Inflammation Modulator	Diabetic Kidney Disease	Phase III in JP	Licensed from Reata			
				Hypercalcemia In Patients With Parathyroid Carcinoma or Primary Hyperparathyroidism	Phase III in JP	Licensed from Mitsubishi Tanabe Pharma			
Oncology		© <b>KHK2375</b> <b>Entinostat</b> <b>Oral</b>	HDAC Inhibitor	Breast Cancer	Phase II in JP	Syndax			
Immunology/A llergy		<b>KW-0761</b> <b>Mogamulizumab</b> <b>Injection</b>	Anti-CCR4 Humanized Antibody	Adult T-cell Leukemia/Lymphoma	Phase II in US, EU and others	In-House	POTELLIGENT®		
Immunology/A llergy		© <b>KHK4083</b> <b>Injection</b>	Anti-OX40 Fully Human Antibody	Ulcerative Colitis	Phase II in US, EU and others	In-House	POTELLIGENT® Human Antibody-Producing Technology		
				<b>KHK4563</b> <b>Benralizumab</b> <b>Injection</b>	Anti-IL-5 Receptor Humanized Antibody	Chronic Obstructive Pulmonary Disease (COPD)	Phase III in JP	In-House	POTELLIGENT® Jointly Developed with AstraZeneca/MedImmune
						Eosinophilic Chronic Rhinosinusitis (ECRS)	Phase II in JP		
Immunology/A llergy		<b>KHK4827</b> <b>Brodalumab</b> <b>Injection</b>	Anti-IL-17 Receptor A Fully Human Antibody	Psoriasis	Phase III in KR	Kirin-Amgen			
				Axial Spondyloarthritis (axSpA)	Phase III in JP, KR and TW				
Central Nervous System		<b>KW-0761</b> <b>Mogamulizumab</b> <b>Injection</b>	Anti-CCR4 Humanized Antibody	HTLV-1 associated myelopathy (HAM)	Phase III in JP	In-House	POTELLIGENT®		
Central Nervous System		© <b>KW-6356</b> <b>Oral</b>	Adenosine A <sub>2A</sub> Receptor Antagonist	Parkinson's Disease	Phase II in JP	In-House			
Other		© <b>KRN23</b> <b>Burosumab</b> <b>Injection</b>	Anti-FGF23 Fully Human Antibody	X-linked Hypophosphatemia (XLH) in adult patients	Phase III in US, CA, EU, JP and KR	In-House	Human Antibody-Producing Technology Jointly Developed with Ultragenyx in US and EU		
				X-linked Hypophosphatemia (XLH) in pediatric patients	Phase III in US, CA, EU, AU, JP and KR				
				Tumor Induced Osteomalacia(TIO)/Epidermal Nevus Syndrome (ENS)	Phase II in US Phase II in JP and KR				
Other		<b>AMG531</b> <b>Romiplostim</b> <b>Injection</b>	Thrombopoietin Receptor Agonist	Aplastic Anemia	Phase II / III in JP and KR	Kirin-Amgen			
				Idiopathic (Immune) Thrombocytopenic Purpura	Phase III in CN				

 Updated since Mar. 31, 2018 (Area, Stage, Filed, Approved, etc.)  
 New Molecular Entity








# R&D Pipeline



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Ph I

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Oncology		©KHK2455 Oral	IDO 1 Inhibitor	Solid Tumor	Phase I in US	In-House	Combination with KW-0761
		©KHK2823 Injection	Anti-CD123 Fully Human Antibody	Cancer	Phase I in UK	In-House	POTELLIGENT® Human Antibody-Producing Technology
		KW-0761 Mogamulizumab Injection	Anti-CCR4 Humanized Antibody	Solid Tumor	Phase I / II in US  Phase I in JP	In-House	POTELLIGENT® Combination with Nivolumab (Jointly Developed with Bristol-Myers Squibb)  Combination with Nivolumab (Jointly Developed with Ono Pharmaceutical)
Immunology/ Allergy		©KHK4083 Injection	Anti-OX40 Fully Human Antibody	Ulcerative Colitis Atopic Dermatitis	Phase I in JP Phase I in JP	In-House	POTELLIGENT® Human Antibody-Producing Technology
		KHK4827 Brodalumab Injection	Anti-IL-17 Receptor A Fully Human Antibody	Autoimmune Disease	Phase I in JP	Kirin-Amgen	
Central Nervous System		©KHK6640 Injection	Anti-Amyloid Beta Peptide Antibody	Alzheimer's Disease	Phase I in EU Phase I in JP	Licensed from Immunas Pharma	
Others		KW-3357 Antithrombin Gamma Injection	Recombinant Human Antithrombin	Disseminated Intravascular Coagulation, Congenital Antithrombin Deficiency	Phase I in EU	In-House	


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