



# KOREA DRUG DEVELOPMENT FUND



YOUR GATEWAY FOR INNOVATIVE DRUG  
CANDIDATES IN SOUTH KOREA

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**Published by** Korea Drug Development Fund  
**Publication date** December 2022  
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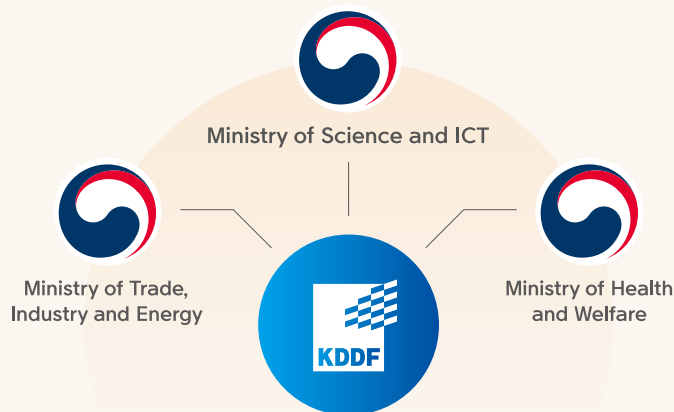
Version 2.0

The background features several large, stylized letters and geometric shapes. At the top, a large letter 'D' is partially visible, with its left side filled with diagonal hatching. To the right, another large 'D' is shown, also with diagonal hatching on its left side. On the left side, a large letter 'K' is partially visible, with its bottom-left corner filled with a white dot pattern. At the bottom, a large letter 'F' is partially visible, with its bottom-right corner filled with a checkerboard pattern. Thin blue lines crisscross the background, creating a grid-like structure.

**KOREA  
DRUG  
DEVELOPMENT  
FUND**

# WHO WE ARE

Korea Drug Development Fund (KDDF) is a government agency funded by three government ministries. We aim to actively fund and provide the necessary support for drug development to academia and pharmaceutical industries.



## Our purpose

With a mission to foster Korea's biomedicine technologies and drug development programs, we aim to spend of USD 2Bn to grant 1,234 projects by 2030 so that innovations from academia and pharmaceutical companies can progress and flourish.

**USD 2Bn**

To grant 1,234 projects between 2021 and 2030



**Key outcomes** Here are our highlight outcomes of the season 1 (2011-2020).  
(2011-2020)

**Funding**



**USD 300Mn**

**Property Management**



**162**

Cumulative assets

**Approved Drug by**



**1**

FDA and EMA

**3**

MFDS

\*Korea Ministry of Food & Drug Safety

**Licensing Deals**



**70**

New license

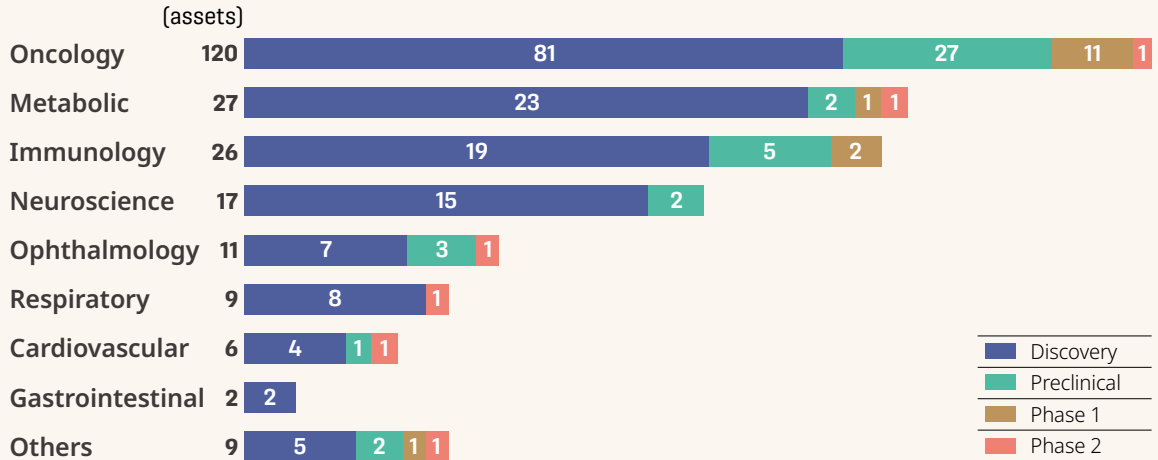
**USD 17.0Bn**

Biodollars Licensing Deals

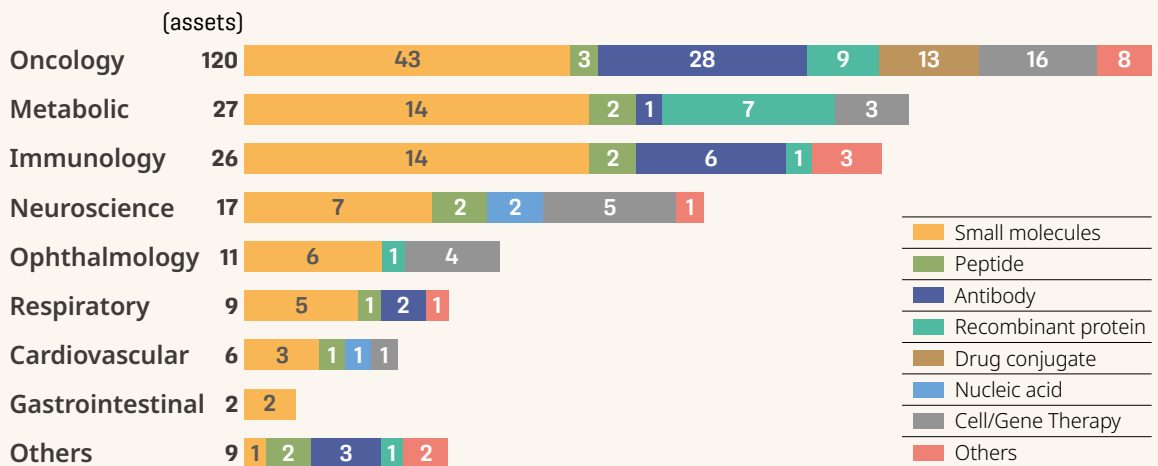
Exchange currency :  
USD 1 = 1084.7 Korean won (2020.12.31)

# PIPELINE OVERVIEW (TOTAL OF 227 PROJECTS)

## KDDF pipeline by stage, indication



## KDDF pipeline by modality, indication



# BUSINESS DEVELOPMENT AND LICENSING SUPPORT

KDDF funds and sponsors innovative drug development projects from lead to the clinical stage, encompassing academia, research institutes, biotech and pharmaceutical companies. Besides funding drug development projects, KDDF also supports business development, including out-licensing funding for projects and in-sourcing of drug seeds from abroad.

## CPG

(Co-development  
partnering for  
Globalization)



CPG program offers business development consulting services through professional life science advisory firms. Out-Licensing and co-development will be accelerated via global network of KDDF, outreach marketing, valuation and deal strategy.

## Global C&D



C&D program provides an open innovation strategy, seeking potential drug candidates to co-develop with international organizations via Global Sourcing.

## Joint R&D



Joint R&D track is a top-down collaboration model partnering with Multinational Corporation (MNC). KDDF and MNC will interact with each other through MOU to develop and commercialize drugs originating from Korean organizations.

## PIPELINE DETAILS (AS OF DECEMBER 2022)

### Oncology



Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
ADC	Cancer Doppel	▶				Seoul National University -
	Gastrointestinal stromal tumor C-kit	▶▶▶▶▶				Novelty Nobility NN3201
	Glioblastoma, Bladder cancer FGFR3	▶▶▶▶				AimedBio Inc AMB302
	NSCLC B7-H3	▶▶▶▶▶				IntoCell ITC-6146RO
	Rare cancer DLL3	▶▶▶▶				IntoCell -
	Solid Tumor TROP2	▶▶▶▶▶▶				LegoChem Biosciences, Inc. TROP2-ADC
Antibody	Cancer cachexia GFRAL	▶▶▶▶▶				TroyY -
	Esophageal squamous cell carcinoma, TNBC PTK7	▶▶▶▶				Yonsei University -
	Lung cancer NSN-001	▶▶▶▶▶				NEX-I -
	Lung cancer DDOST	▶▶▶▶				Hanyang University -
	Lung cancer IGSF1	▶▶▶▶▶▶				Wellmarkerbio -
	Lung cancer, Colorectal cancer, Breast cancer CD300c	▶▶▶▶▶▶				CentricsBio Inc. CL7
	Metastatic colorectal cancer CCSP-2	▶▶▶▶				Asan Medical Center -



Oncology

Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
Antibody	Metastatic malignant melanoma Oncokine-2					Korea University -
	non-Hodgkin lymphoma, CLL CD20, CD55					Korea University -
	NSCLC VISTA					PharmAbcine Inc PMC-309
	NSCLC -					KRIBB -
	NSCLC CHI3L1					Senelix -
	Solid Tumor TIGIT					HanAll Biopharma -
	Solid Tumor CXCL16					Cellus -
	Solid Tumor TREM2					AimedBio Inc AMB018
	Solid Tumor CNTN4					Genome&Company -
ApDC	Squamous cell carcinoma, Renal cell carcinoma PD-1					Y-Biologics YBL-006
	TNBC nucleolin					Interoligo -
Bispecific antibody	Solid Tumor CD25					APTAMER Sciences CD25-ApDC
	Colorectal cancer EGFR, 4-1BB					CT CELLS RACE-111
	Colorectal cancer HLA-G, CD3					Y-Biologics HLA-GxCD3 ALICE
	NSCLC c-MET, EGFR					Chong Kun Dang pharmaceutical Corp. CKD-702

\*Pre : Preclinical

Oncology
















Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
Bispecific antibody	NSCLC, Lung cancer, Colorectal cancer PD-L1, LAG-3					ABLBio ABL501
	Solid Tumor B7-H4, 4-1BB					ABLBio ABL103
	Solid Tumor PD-L1, SIRPα					PharmAbcine Inc -
	Solid Tumor PD-L1, CD3					MustBio Inc -
	Solid Tumor PD-L1, IL-2					MustBio Inc -
	Solid Tumor B7-H3, TGF-β					Theranotics -
	TNBC PD-L1, CD47					ImmuneOncia IOH-001
	Cancer C4d, CD3					Seoul National University -
Bispecific shRNA	Bladder cancer, Head and neck cancer mTOR, STAT3					Curigin CA102
Cancer Vaccine	Glioblastoma -					CELL & BRAIN Co., Ltd MSC11FCD
	Non-Hodgkin lymphoma -					Progeneer ProV-001
CAR-NK	Blood Cancer CD5 CAR-NK					KRIBB -
	Relapsed and refractory Pancreatic cancer -					KIST -
CAR-T	Blood tumor CD40					TiCARos Inc CD40 Probe&Catch CAR T cells
	Glioblastoma IL13Ra2					CellabMED YYB-103

Oncology















Drug Class	Indication	Stage				Company
		Discovery	Pre	PhI	PhII	
CART-T	Non-Hodgkin lymphoma CD19					AbClon Inc. AT101
	Non-small cell lymphoma CD19					Curocell Inc. CRC01-01
	Ovary cancer L1CAM					Cartexell Inc -
	Solid Tumor B7-H3, IL-12					Seoul National University -
DCs(Nano DC)	Solid Tumor dendritic cell					Yonsei University HynaDC
Exosome	AML αGC-loaded ECNV					Seoul National University -
	Pancreatic cancer, Liver cancer FAF1					ChungNam National University -
Fusion protein	Advanced or Metastatic Solid Tumor CD80, IL-2					GI Innovation, Inc GI-101
	HER2+ tumor IFN-β					GenoPharm Bio GNP101
	Solid Tumor FAP, IL-12					KANAPH Therapeutics KNP-101
	Solid Tumor CD73, IL-2					GI Innovation, Inc GI-108
	TNBC CD47, CD73					AprilBio -
Microbial-based ( <i>Salmonella</i> , <i>attenuated</i> )	Colorectal cancer -					CNCure biotech Inc. -
MRI contrast agent	Diagnostic -					Melanis ML-101
Nanoparticle	Colorectal cancer, Breast cancer, Ovary cancer Cathepsin B					Ewha Women's University KMO022

\*Pre : Preclinical

Oncology

Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
Oncolytic bacteria	Solid Tumor FlaB, ClyA					CNCure biotech Inc. -
Oncolytic virus	Ovary cancer EpCAM					GenCellMed oHSV-1
Oncolytic virus + MSC conjugate	Pancreatic cancer, Liver cancer TGFβ1, HSP27					Yonsei University -
Peptide	Colorectal cancer Phospholipid layer					Sungkyunkwan University -
	Lung cancer -					Penta Medix -
	Pancreatic cancer, Lung cancer KRAS mutant					NA Vaccine Institute NexaVac
PROTAC-CART conjugate	Blood cancer CAR-DEGRON-T					KRICT -
PDC	Malignant tumor -					Seoul National University -
	Solid Tumor (EGFR overexpression) EGFR					ProEn Therapeutics -
Radio-liganded	Prostate cancer PSMA					CellBion Co., Ltd. PSMA-DGUL
	Prostate cancer PSMA					FutureChem Co., Ltd. [177Lu]FC705
Recombinant protein	Cancer IL-21, PD-1					BIOOnSYSTEMS BNS001
	Kidney cancer, Skin cancer IL-2					GENUV -
	Solid Tumor retinoid					Senelix -
	Renal cell carcinoma, melanoma IL-2					Hanmi Pharm. Co., Ltd. HM16390

Oncology

Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
RRV (Split-RRV)	Glioblastoma -					ArtiCure ARTI 101
siRNA	Solid Tumor IDO1					Lemonex Inc. LEM-S403
Small molecule	AML PIM Kinase					Jeil Pharmaceutical Co., Ltd. JPC-089
	AML CK1α					Pin Therapeutics -
	Advanced Solid Tumor AhR					DONG-A ST DA-4505
	Brain cancer, Lung cancer HPK1/MLK3					MD Biolab KHK-1, KHK-2
	Breast cancer HER2					B2SBio Inc. BTS-A, B
	Breast cancer TRIB2					Genesen Co, Ltd. -
	Breast cancer MASTL					KIRAMS -
	Cancer TPST2					GIST -
	CML BTK (C481S)					Medytox SRT042
	AML, CML HMGCLL1					Samsung Medical Center -
	Colorectal cancer USP21					DGMIF -
	Colorectal cancer ENPP1					TXINNO Bioscience Inc TXN10128
	Colorectal cancer GCN2					1st Biotherapeutics, Inc 1STBIO-GCN2-01/02/03

\*Pre : Preclinical

Oncology



Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
Small molecule	Colorectal cancer (KRAS mutation) KRAS					Zymedi -
	Colorectal cancer, Lung cancer, Pancreatic cancer ULK1					TXINNO Bioscience Inc -
	Glioblastoma TSPO					Seoul National University BS333
	Glioblastoma SCAP:SREBP1					MEDIFIC MFC0101-7043
	Glioblastoma PRMT5					SK Biopharmaceuticals SKL27969
	Liver cancer, NASH FLT3/VEGFR2/PDGFRb TK					Etnova Therapeutics MBP-11901
	Lung cancer p53 or USE1					KRICT -
	Malignant tumor EZH1/2					Hanmi Pharm. Co., Ltd. HM97662
	Malignant tumor FOXO1					AprilBio KUMC-08-0022, 0055
	Multiple Myeloma 19S RP UCHL5					KRIBB -
	NSCLC EGFR(C797S)					Bridge Biotherapeutics, Inc BBT-176
	NSCLC EGFR mutation					Cyrus Therapeutics -
	NSCLC(EGFR mutation) EGFR					Voronoï, Inc VRN110755
	NSCLC, Colorectal cancer, Head and neck cancer SHP2					KANAPH Therapeutics -
Ovary cancer ALCAM					HiCELL Tech -	

Oncology

Drug Class	Indication	Stage				Company
		Discovery	Pre	PhI	PhII	
Small molecule	Pancreatic cancer NDRG3					KRIBB -
	Prostate cancer PIP5K1α					TSD Life Sciences T1522
	Resistant cancer PIN1					PimedBio PMB212
	Solid Tumor GLS1					KRICT TRG-0039
	Solid Tumor TRIM29					SPARK Biopharma SB24011
	Solid Tumor G9a					Asan Medical Center -
	Solid Tumor STING					KIST -
	Solid Tumor TGFβR1					Tium BIO TU2218
	TNBC HDAC6/8					Sookmyung Women's University -
	TNBC ENPP1					KIST KH0017
	TNBC TTK					KRICT -
	TNBC STAT3					JW Pharmaceutical JW2286
	TNBC, Resistance solid tumor Mps1					Voronoï, Inc VRN081569
TPD	NSCLC PLK1					DANDI CURE -
	NSCLC PLK1					UPPPHERA -







\*Pre : Preclinical

## Oncology

Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
TPD	NSCLC(EGFR mutation) EGFR					J2H Biotech J2H-2002
TCR-T	Solid Tumor -					Neogen TC NEOG-400

## Cardiovascular



Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
miRNA	Acute heart failure miRNA (miR-A, 128-3p, 34a-5p, B, 203a-3p)					StemMeditech Inc. ANT-A/B
pDNA- micoparticle conjugate	Peripheral arterial disease, Diabetic peripheral neuropathy HGF					G&P Bioscience GB107
Peptide	Pulmonary hypertension PP1					NadianBio WK7003
Small molecule	Aortic Stenosis DPP-4					REDNVIA Evogliptin
	Congestive heart failure, Chronic renal disease pendrin					Yonsei University A4948
	Pulmonary hypertension PDGFR					Voronoi, Inc VRN130184



## Gastrointestinal disease



Drug Class	Indication	Stage				Company
		Discovery	Pre	PhI	PhII	
Small molecule	Cholelithiasis GAllstone	▶				Surginex MMP
	Dyspepsia Ghrelin receptor	▶				Kyungpook University KARI101, 201

## Immunology





Drug Class	Indication	Stage				Company
		Discovery	Pre	PhI	PhII	
Antibody	Atopic dermatitis TCTP/HRF	▶				Ewha Women's University -
	Multiple sclerosis CD40	▶				PB Immune Therapeutics PB-40N
	Pemphigus CD40	▶				PB Immune Therapeutics PB101
	Paroxysmal nocturnal hemoglobinuria C5	▶▶▶				ImmunAbs IM-101
	Rheumatoid arthritis WARS1	▶▶				MirimGene M102AI
Bispecific antibody	Rheumatoid arthritis, Autoimmune diseases OX40L, TNF-α	▶▶▶▶				IMBiologics IMB-101
Exosome	IBD CARD9, TRIM62	▶				ILIAS Biologics Inc. -
Macromolecule (PEGylated, nanoparticle)	Ischemia reperfusion injury ROS	▶▶▶▶				BILIX Brixelle (PEGylated bilirubin 3α)
Nanoparticle	Psoriasis, Contact dermatitis Hyaluronic acid	▶▶				Ajou University -

\*Pre : Preclinical

## Immunology











Drug Class	Indication	Stage				Company
		Targets	Discovery	Pre	PhI	
Peptide	Atopic dermatitis FPR2					Novacell Technology Inc. NCP112
	Multiple sclerosis FPR					Sungkyunkwan University WKYMVm
Recombinant protein	Systemic lupus erythematosus, IBD IL-2					AprilBio APB-R4
Small molecule	Atopic dermatitis STAT3					C&C Lab AD-1045
	Atopic dermatitis EGR1					Konkuk University -
	Asthma IL-33					AZCURIS KB1518
	Crohn's disease LRRK2					Chung Ang University -
	Crohn's disease AhR					Parenchyma Biotech PB542
	Rheumatoid arthritis, IBD PKM2					Lmito Therapeutics LMT-3833
	Osteoarthritis OSCAR					KaiPharm -
	Psoriasis CR-E1					Curogen Technology CR-PSZ
	Psoriasis, Inflammatory diseases NLRP3					Ajou University -
	Psoriasis, Rheumatoid arthritis Tyk2					CrystalGenomics, Inc. -
	Resistant cancer PIN1					PimedBio PMB212
	Systemic sclerosis SOS1/RAS					Kyungpook University -

## Immunology

Drug Class	Indication	Stage				Company	
		Targets	Discovery	Pre	PhI		PhII
Small molecule	Ulcerative colitis PYGL						INNOVO Therapeutics BJ-80F
	Ulcerative colitis, Crohn's disease PIN1						PimedBio -
















## Metabolic disorders



Drug Class	Indication	Stage				Company	
		Targets	Discovery	Pre	PhI		PhII
AAV	NASH CR-P1						Curogen Technology CR-G001
Antibody	NASH Resistin, CAP1						Seoul National University Hospital -
Fusion protein	NASH TLR5						MediSpan MSP-306
	Obesity GDF15						Yuhan YH34160
miRNA	Sarcopenia Atrogin-1						AVENTI Inc. AVTM201
Peptide	Sarcopenia TLQP21						Asan Medical Center -
	NASH CXCR7						Yonsei University WUXI1
Recombinant protein	Acromegaly hGH receptor						Alteogen Inc. ALT-B5
	Congenital hyperinsulinism glucagon						Hanmi Pharm. Co., Ltd. HM15136
	NASH FGF21, GLP-1, GCG, a-cytokine						Onogene Biotechnology OGB21502

\*Pre : Preclinical

Metabolic disorders

Drug Class	Indication	Stage				Company
		Discovery	Pre	PhI	PhII	
Recombinant protein	Sarcopenia CLCF1					KRIBB recombinant CLCF1
	Sarcopenia NOTCH1					NUON Bio NB-101
Small molecule	Cirrhosis SMS1					Seoul National University -
	Diabetes PPARγ/AMPA					Seoul National University Hospital -
	Diabetes SGLT1/2					Jeil Pharmaceutical Co., Ltd. JP-2266
	Diabetes CB1R					Sungkyunkwan University -
	Diabetes, Obesity Atypical PKC					Yonsei University -
	Diabetes, Obesity PPARγ S273					KRIBB -
	Duchenne muscular dystrophy NMD					RiboTech -
	Liver fibrosis LPAR1					AM SCIENCES AMS-III-1086
	NASH MLKL					Hanyang University -
	NASH TFEB					LysoTech MSL-7
	NASH charperone-mediated autophagy					Yonsei University -
	Obesity IP6K					KAIST -
	Diabetes PPARγ, AMPA					Seoul National University -

## Metabolic disorders

Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
Small molecule	Diabetes PAK4	▶				Jeonbuk National University ND201651
shRNA/ peptide	Obesity FABP4, FABP5	▶▶				Hanyang University -

## Neuroscience



Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
AAV	Neuropathic pain GCH1	▶				Yonsei University AAV-h/r-shGCH1
	Spinal cord injury hLHX3:T2A:hGSTA4	▶▶				Stand Up Therapeutics LYH-001
AAV (CRISPR/CAS9)	Charcot-Marie-Tooth disease type 1A PMP22	▶▶▶				ToolGen, Inc. TGT-001
AAV (RNA trans- splicing)	Rett syndrome MeCP2	▶▶				Rznomics Inc. -
ASO	FCDII Refractory epilepsy eIF4E	▶▶▶				SoVarGen Co., Ltd. SVG102_N075, SVG102_N182
Exosome	Parkinson's disease Parkin, PGC-1α	▶				Sungkyunkwan University -
Peptide	Chronic pain TRPV1	▶▶				Gachon University -
	Parkinson's disease LRRK2	▶▶▶				Whan Inn Pharm. Co., Ltd. -
PNA	Parkinson's disease TLR2	▶▶				SEASUN Therapeutics, Inc. -
	Amyotrophic lateral sclerosis STMN2	▶▶				OliPass Corporation -

\*Pre : Preclinical

## Neuroscience







Drug Class	Indication	Stage				Company
		Discovery	Pre	PhI	PhII	
	<b>Targets</b>					<b>Product Code</b>
Small molecule	Genetic hearing loss KV7.4	▶				Yonsei University B2961, DWP215130
	Hearing loss DRAK1, ADCK4, CDC42BPA kinase	▶				Kyungpook University KPLO-2004
	Major depressive disorder A2 adrenergic, NDRI	▶				Kyung Hee University -
	Parkinson's disease $\alpha$ -synuclein	▶				Hanyang University -
	Parkinson's disease ASK1	▶				KRICT -
	Progressive supranuclear palsy, 4R tauopathies 4R tau oligomer	▶				KIST DTC0148
TPD	Parkinson's disease -	▶				AUTOTAC Bio Inc. -

## Ophthalmology

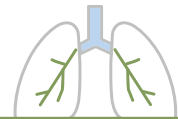








Drug Class	Indication	Stage				Company
		Discovery	Pre	PhI	PhII	
	<b>Targets</b>					<b>Product Code</b>
AAV	Genetic retinal disease -	▶				Asan Medical Center -
	Autosomal dominant retinitis pigmentosa -	▶				Rznomics Inc. RZ-004
	Macular degeneration -	▶				CdmoGen CRG-02
AAV (CRISPR/CAS9)	Retinitis pigmentosa EYS c.4957dupA	▶				Sungkyunkwan University -
AAV (CRISPR/CAS9, pegRNA)	Leber congenital amaurosis CEP290	▶				Seoul National University -

## Ophthalmology

Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
Small molecule	Age-related macular degeneration PDK4					Kyungpook University -
	Diabetic retinopathy TGase2					DGMIF -
	Diabetic retinopathy TRAP1					SMARTIN BIO Inc. -
	Diabetic retinopathy SGLT2					Daewoong Therapeutics Enavogliflozin
	Dry Macular degeneration Autophage					VasThera JS-017
	Glaucoma, Ocular hypertension A <sub>3</sub> AR					Future Medicine Co., Ltd. FM101

## Respiratory Disease



Drug Class	Indication Targets	Stage				Company Product Code
		Discovery	Pre	PhI	PhII	
Antibody	Pulmonary emphysema Robo1					Asan Medical Center -
	Pulmonary fibrosis FBFP-101-T					FNC Biotech FBFP-11x
Exosome	Bronchopulmonary dysplasia Ago2					Samsung Medical Center -
Small molecule	COPD BLT2					Korea University LMT-1013
	IPF ALK5					Autotelic Bio AA2-077
	IPF Prolyl-tRNA synthetase (PRS)					Daewoong Pharmaceutical Co., Ltd. DWN12088

\*Pre : Preclinical







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