

KOREA DRUG DEVELOPMENT FUND



YOUR GATEWAY
FOR INNOVATIVE
DRUG CANDIDATES
IN SOUTH KOREA

VERSION 3.0

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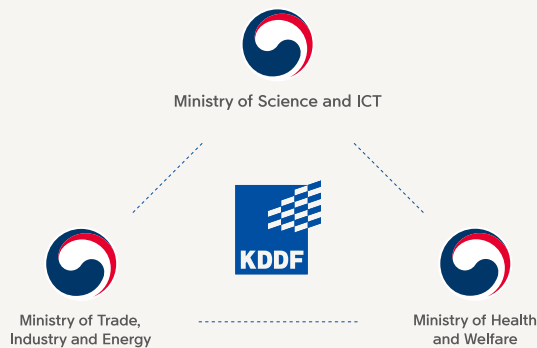


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WHO WE ARE

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.

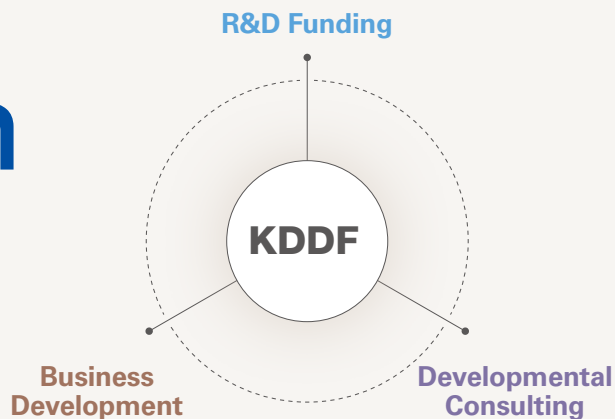


OUR PURPOSE

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)

FUNDING

USD **300Mn**

PROPERTY MANAGEMENT

Cumulative assets

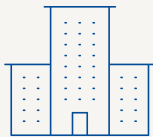
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APPROVED DRUG BY

FDA and EMA

1



MFDS

*Korea Ministry of Food & Drug Safety

3



LICENSING DEALS

New license

70



Biodollars Licensing Deals

USD **17.0Bn**

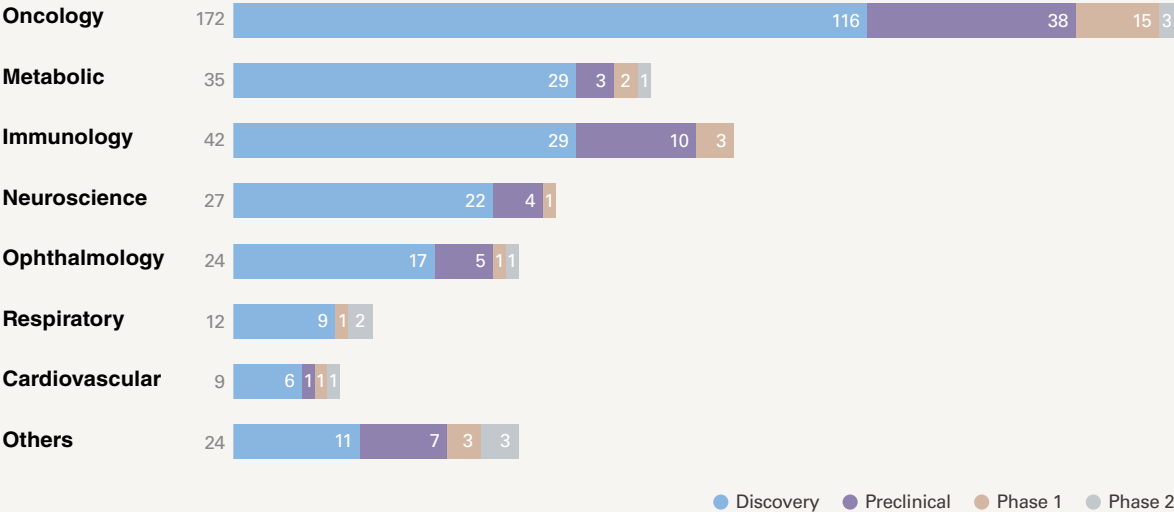


Exchange currency : USD 1 = 1084.7 Korean won (2020.12.31)

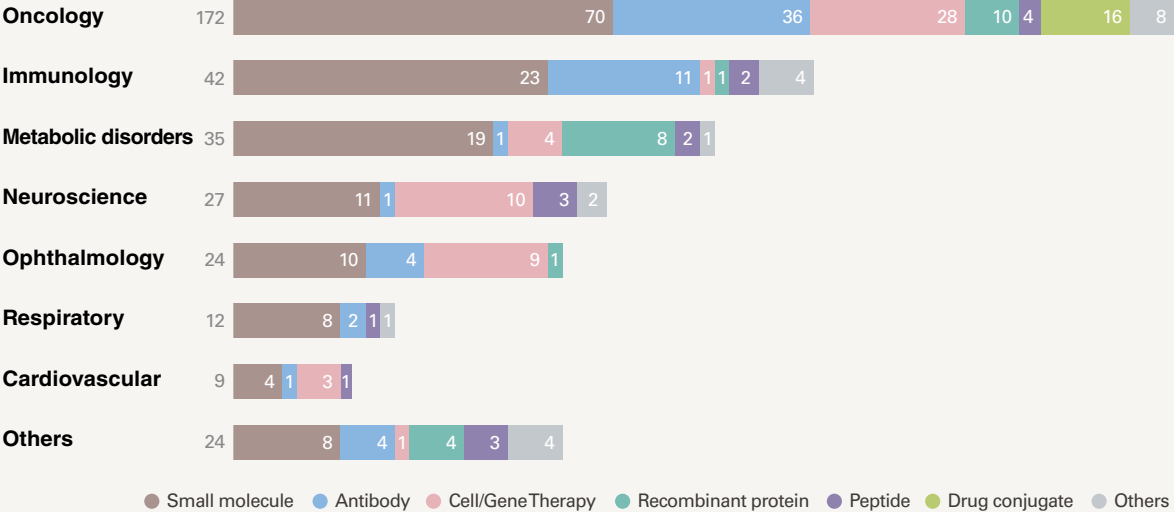
PIPELINE OVERVIEW

TOTAL OF 345 PROJECTS

KDDF assets by stage, indication



KDDF assets by modality, indication



CO-DEVELOPMENT AND LICENSING OPPORTUNITIES WITH KDDF'S PROJECTS

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 for out-licensing, co-development and attracting funding 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 is accelerated through the global network of KDDF, outreach marketing, valuation and deal strategy. To be a global partner of the CPG program, please contact us at kddf_bd@kddf.org

Partnering Events

KDDF provides partnering opportunities to connect Korean pharmaceutical and biotech companies with global pharmaceutical companies and international investors. At the Global Biotech Showcase and the KDDF Symposium for Global Co-development and Partnership, promising Korean pharmaceutical and biotech companies showcase their innovative projects for partnering or venture funding. Additionally, KDDF regularly updates new projects and arranges meetings with Korean companies as requested by global partners.

ADCCaptain

ADCCaptain project unities and funds individual components of ADCs from multiple Korean companies, aiming to address the substantial unmet medical need for certain solid tumors through developing blockbuster ADC drugs. KDDF is actively seeking partner for future co-development, especially clinical development, and for investment.

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 pharmaceutical or biotech companies.

PIPELINE DETAILS

As of December 2023

Oncology



DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
ADC	Cancer	Doppel	■				-	Seoul National University
	Gastric cancer, GEJ	CLDN18.2	■	■	■	■	AT-211	AbTis
	Gastrointestinal stromal tumor	C-kit	■	■	■	■	NN3201	Novelty Nobility
	Glioblastoma	FGFR3	■	■	■	■	AMB302	AimedBio Inc
	Glioblastoma, Bladder cancer	FGFR3	■	■	■		AMB302	AimedBio Inc
	NSCLC	B7-H3	■	■	■	■	ITC-6146RO	IntoCell
	Rare cancer	DLL3	■	■			-	IntoCell
	Solid Tumor	TROP2	■	■	■	■	TROP2-ADC	LegoChem Biosciences, Inc.
Antibody	AML	CD33	■	■			CTN008	Centenaire Biosciences
	Cancer	HGF	■	■			H1-15	Seoul National University
	Cancer cachexia	GFRAL	■	■	■		anti-GFRAL antagonistic antibody	TroyY
	CLDN3 ^{hi} solid cancer	CLDN3	■	■	■		abn501	ABION
	ESCC, TNBC, PTK7 ^{hi} cancer	PTK7	■	■			-	Yonsei University
	Lung cancer	DDOST	■	■			-	Hanyang University
	Lung cancer	IGSF1	■	■	■	■	-	Wellmarkerbio
	Lung cancer, Colorectal cancer, Breast cancer	CD300c	■	■	■	■	CL7	CentricsBio Inc.
	Melanoma	IL-36	■				-	DGIST
	Metastatic colorectal cancer	CCSP-2	■				-	Asan Medical Center
	Metastatic malignant melanoma	Oncokine-2	■				-	Korea University
	NHL, CLL	CD20, CD55	■				-	Korea University
NSCLC	VISTA	■	■	■	■	PMC-309	PharmAbcine Inc	

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Antibody	NSCLC	NSN-001	■	■			-	NEX-I
	NSCLC	TMPRSS4	■				-	KRIBB
	NSCLC	CHI3L1	■	■			-	Senelix
	Solid cancer	APP	■	■			GENA-119	Genome&Company
	Solid Cancer	TCTP	■	■	■		BI0101	BOOSTIMMUNE
	Solid Tumor	TIGIT	■	■	■		-	HanAll Biopharma
	Solid Tumor	CXCL16	■				-	Cellus
	Solid Tumor	TREM2	■	■			AMB018	AimedBio Inc
	Solid Tumor	CNTN4	■	■	■	■	-	Genome&Company
	SCC, RCC, Solid tumor	PD-1	■	■	■	■	YBL-006	Y-Biologics
ApDC	Ovary cancer	ALCAM	■				Aptamer ApDC	HiCELL Tech
	Solid Tumor	CD25	■	■			CD25-ApDC	APTAMER Sciences
	TNBC	Nucleolin	■	■			-	Interoligo
ASO	Pediatric brain tumor	BRAF	■	■	■		SVG301	SoVarGen Co., Ltd.
Bispecific antibody	NSCLC	c-MET, EGFR	■	■	■	■	CKD-702	Chong Kun Dang pharmaceutical Corp.
	Cancer	C4d, CD3	■				-	Seoul National University
	Cancer	PSMA, CD137	■	■			-	AbClon Inc.
	Colorectal cancer	HLA-G, CD3	■	■	■		HLA-GxCD3 ALICE	Y-Biologics
	Colorectal cancer	EGFR, 4-1BB	■	■	■		RACE-111	CT CELLS
	Solid Tumor	PD-L1, LAG-3	■	■	■	■	ABL501	ABLBio
	Solid Tumor	PD-L1, SIRPa	■				-	PharmAbcine Inc
	Solid Tumor	PD-L1, CD3	■	■			-	MustBio Inc
	Solid Tumor	PD-L1, IL-2	■	■	■		PD-L1xIL-2v	MustBio Inc
	Solid Tumor	B7-H3, TGF-β	■	■	■		B7-H3xTGFβ BsAbs	Theranotics
	Solid Tumor	B7-H4, 4-1BB	■	■	■	■	ABL103	ABLBio

PIPELINE DETAILS

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Bispecific antibody	TNBC, NSCLC, Pancreatic cancer	DDR1, TGF-β	█				-	POSTECH
	TNBC	PD-L1, CD47	█	█	█	█	IOH-001	ImmuneOncia
Bispecific shRNA	Bladder cancer, Head and neck cancer, Pancreatic cancer	mTOR, STAT3	█	█	█	█	CA102	Curigin
	Ovarian cancer	c-Myc, BCL2	█	█			CA106-T	Curigin
Cancer vaccine	NHL	-	█	█	█		ProV-001	Progeneer
CAR-NK	Blood Cancer	CD5	█	█			-	KRIBB
	R/R Pancreatic cancer	Endoglin	█	█			-	KIST
CAR-T	B cell lymphoma	CD19	█	█	█	█	TC011	TiCARos Inc
	Blood tumor	CD40	█	█	█		CD40 Probe & Catch CAR T cells	TiCARos Inc
	Glioblastoma	IL13Rα2	█	█	█	█	YYB-103	CellabMED
	Liver cancer	GPC3	█	█	█	█	EU307	Eutilex Co.
	NHL	CD19	█	█	█	█	AT101 (h1218-CART19)	AbClon Inc.
	Non-small cell lymphoma	CD19	█	█	█	█	CRC01-01	Curocell Inc.
	Ovarian cancer	Mesothelin	█	█	█		-	CellenGene
	Ovarian cancer	L1CAM	█	█	█	█	-	Cartexell Inc
	Solid Tumor	B7-H3, IL-12	█				-	Seoul National University
	Solid Tumor	IL-21	█				-	Seoul National University
	Solid tumor	HLA-G	█	█	█	█	IN-B014	Inno.N
DCs (Nano DC)	Solid Tumor	DCs	█				HynaDC	Yonsei University
Exosome	AML	aGC-loaded ECVN of AML	█				-	Seoul National University
	Pancreatic cancer, Liver cancer	FAF1	█	█			-	ChungNam National University
Fusion protein	Advanced or Metastatic Solid Tumor	CD80, IL-2	█	█	█	█	GI-101 (CD80-IgG4 Fc-IL2v)	GI Innovation, Inc

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Fusion protein	HER2+ tumor	IFN-β	■	■	■		GNP101	GenoPharm Bio
	Solid Tumor	FAP, IL-12	■	■	■		KNP-101	KANAPH Therapeutics
	Solid Tumor	CD73, IL-2	■	■	■	■	GI-108	GI Innovation, Inc
	TNBC	CD47, CD73	■				-	AprilBio
iPSC	Liver cancer	IL-15RF, HLA-G	■	■	■		TB-200	THERABEST
Microbial-based (Salmonella, attenuated)	Colorectal cancer	-	■	■	■		-	CNCure biotech Inc.
miRNA	Liver cancer	let-7i-5p miRNA	■	■	■	■	NRT-YHD-001	NEORNAT
MRI contrast agent	Diagnostic	Melanin contrast agent	■	■	■	■	ML-101	BL Melanis
mRNA	B cell lymphoma	NK cell	■				-	Denovo Biotherapeutics
	Solid Tumor	Tumor-specific T cells	■				VCN-100	Geninus
MSC-CD	Glioblastoma	Cytosine Deaminase	■	■	■		MSC11FCD	CELL & BRAIN Co., Ltd
Nanoparticle	Colorectal/Breast/Ovarian/Pancreatic cancer	Cathepsin B	■	■			KMO022	Ewha Women's University
Oncolytic bacteria	Solid Tumor	FlaB, ClyA	■	■			-	CNCure biotech Inc.
Oncolytic virus(Adeno) + MSC conjugate	Pancreatic cancer, Liver cancer	TGFb1, HSP27	■	■			-	Yonsei University
Oncolytic virus(Herpes)	Ovarian cancer	EpCAM	■	■			oHSV-1	GenCellMed
PDC	Malignant tumor	Macrophage	■				-	Seoul National University
	Solid Tumor (EGFR overexpression)	EGFR	■	■			-	ProEn Therapeutics
Peptide (<5kDa)	ccRCC	CAIX	■	■	■		CBT-001-839	Cbiomex
	Colorectal cancer	Phopholipid layer	■				AH-peptide	Sungkyunkwan University
	Lung cancer	-	■	■	■		-	Penta Medix

PIPELINE DETAILS

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Peptide (<5kDa)	Pancreatic cancer, Lung cancer	KRAS mutant	■	■	■		NexaVac	NA Vaccine Institute
PROTAC-CART conjugate	Blood cancer	CAR-DEGRON-T	■				-	KRICT
Radio-liganded	Castration-resistant prostate cancer	PSMA	■	■	■	■	[177Lu] Ludotadipep	FutureChem Co., Ltd.
	Prostate cancer	PSMA	■	■	■	■	PSMA-DGUL	CellBion Co., Ltd.
	Prostate cancer	PSMA	■	■	■	■	[177Lu] Ludotadipep	FutureChem Co., Ltd.
Recombinant protein	Cancer	IL-21, PD-1	■	■			BNS001	BIONSYSTEMS
	Kidney cancer, Skin cancer	IL-2	■				-	GENUV
	NSCLC, Melanoma	PD-L1, TIGIT	■	■	■	■	Cellem001	CELLmedy
	PDAC	Retinoid	■	■			RBP-albumin fusion protein	Senelix
	Renal cell carcinoma, melanoma	IL-2	■	■	■	■	HM16390	Hanmi Pharm. Co., Ltd.
RRV (Split-RRV)	Glioblastoma	Cytosine Deaminase	■	■	■		ARTI 101	ArtiCure
siRNA	Pancreatic cancer	KRAS/G12D	■	■	■		-	Exollence
	Solid Tumor	IDO1	■	■	■	■	LEM-S403 (LEM-17255+ degradaBALL)	Lemonex Inc.
Small molecule	Acute myelogenous leukemia	PIM Kinase	■	■	■	■	JPC-089	Jeil Pharmaceutical Co., Ltd.
	Acute Myeloid Leukemia	CK1α	■	■	■		-	Pin Therapeutics
	Acute Myeloid Leukemia	STAT3/5	■	■	■		SF-4044	C&C Research Laboratories
	Advanced Solid Tumor	AhR	■	■	■	■	DA-4505	DONG-A ST
	Brain cancer, Lung cancer	HPK1/MLK3	■	■			KHK-1, KHK-2	MD Biopharm
	Breast cancer	HER2	■	■	■		BTS-A, B	B2SBio Inc.
	Breast cancer	TRIB2	■	■			-	Genesen Co, Ltd.
	Breast cancer	MASTL	■	■			-	KIRAMS
	Breast cancer, Colon cancer	HER2	■	■	■	■	VRN101099	Voronoi, Inc

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Small molecule	Cancer	SIRT7	■	■			KRM-60801	KRICT
	Cancer	TPST2	■				-	GIST
	Cancer	Myc	■	■	■		ICX-130	Incurix
	Cancer	Topoisomerase I	■	■			-	PINOTBIO
	Cancer	AbClick®Pro (Linker)	■	■			-	AbTis
	Castration-resistant prostate cancer	Adrogen receptor	■	■	■		ICX-301	Incurix
	Castration-resistant prostate cancer	Androgen receptor	■	■	■	■	UBX-103335	Ubix Therapeutics
	Chronic Myelogenous Leukemia	BTK (C481S)	■	■	■		SRT042	Medytox
	Chronic Myelogenous/Acute myelogenous leukemia	HMGCLL1	■	■			-	Samsung Medical Center
	Colorectal cancer	USP21	■	■			-	DGMIF
	Colorectal cancer	ENPP1	■	■	■	■	TXN10128	TXINNO Bioscience Inc
	Colorectal cancer	GCN2	■	■			1STBIO-GCN2-01, 1STBIO-GCN2-02, 1STBIO-GCN2-03	1st Biotherapeutics, Inc
	Colorectal cancer	mutant RON	■	■	■	■	WM-S1-030	Wellmarkerbio
	Colorectal cancer (KRAS mutation)	KRAS	■	■	■		-	Zymedi
	Colorectal cancer, Lung cancer, Pancreatic cancer	ULK1	■	■			-	TXINNO Bioscience Inc
	Glioblastoma	TSPO	■				BS333	Seoul National University
	Glioblastoma	SCAP:SREBP1	■	■	■	■	MFC0101-7043	MEDIFIC
	Glioblastoma	PRMT5	■	■	■	■	SKL27969	SK Biopharmaceuticals
	KRAS-mutated solid cancer(Pancreatic, Lung, Colon cancer)	SOS1	■	■	■		-	Jeil Pharmaceutical Co., Ltd.
	Liver cancer, NASH	FLT3/VEGFR2/PDGFRb TK	■	■	■	■	MBP-11901	Etnova Therapeutics

PIPELINE DETAILS

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Small molecule	Lung cancer	p53 or USE1	■	■			-	KRICT
	Malignant tumor	EZH1/2	■	■	■	■	HM97662	Hanmi Pharm. Co., Ltd.
	Malignant tumor	FOXO1	■				KUMC-08-0022, 0055	Korea University
	Multiple Myeloma	19S RP UCHL5	■	■			-	KRIBB
	NSCLC	EGFR(C797S)	■	■	■	■	BBT-176	Bridge Biotherapeutics, Inc
	NSCLC	EGFR	■	■	■		-	Inno.N
	NSCLC(EGFR mutation)	EGFR	■	■	■	■	VRN110755	Voronoi, Inc
	NSCLC, Colorectal cancer, Head and neck cancer	SHP2	■	■	■		SHP2 allosteric inhibitor	KANAPH Therapeutics
	NSCLC, Melanoma	SMARCA2/4	■	■	■		HD-10601	Hyundai Pharm
	Pancreatic cancer	NDRG3	■				-	KRIBB
	Pancreatic cancer	SIRT6	■	■	■	■	SCB0020160	SC-Bio
	Polycythemia vera	HRI	■	■			-	NexThera
	Prostate cancer	PIP5K1α	■	■			T1522	TSD Life Sciences
	Resistant cancer	PIN1	■	■	■	■	PMB212	PimedBio
	SCLC, AML	GSPT1	■	■	■	■	CYRS1542	Cyrus Therapeutics
	Solid Tumor	TLS	■	■			-	D5 Therapeutics
	Solid Tumor	FoxM1	■	■			-	KRICT
	Solid Tumor	PD-1/PD-L1	■	■	■		IA-05370, IA-05386	ILAb
	Solid Tumor	GLS1	■	■			TRG-0039	KRICT
	Solid Tumor	TRIM29	■	■	■		SB24011	SPARK Biopharma
	Solid Tumor	G9a	■	■			-	Asan Medical Center
	Solid Tumor	STING	■				-	KIST
	Solid Tumor	TGFβR1	■	■	■	■	TU2218	Tium BIO
	Solid Tumor	VRK1	■				-	KRICT
Solid Tumor	PKMYT1	■	■	■		-	Voronoi, Inc	

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Small molecule	Solid Tumor	KRAS-SOS1 PPI	■	■	■	■	C2-558	Cyrus Therapeutics
	Solid Tumor	ENPP1	■	■	■	■	TXN10128	TXINNO Bioscience Inc
	Solid Tumor, NSCLC	c-MET	■	■	■	■	ABN401	ABION
	TNBC	HDAC6/8	■	■			-	Sookmyung Women's University
	TNBC	ENPP1	■				KH0017	KIST
	TNBC	TTK	■	■			-	KRICT
	TNBC	STAT3	■	■	■	■	JW2286	JW Pharmaceutical
	TNBC, CDK4/6 Inhibitor resistance solid cancer	Mps1	■	■	■	■	VRN081569	Voronoi, Inc
TCR-T	Solid Tumor	Neoantigen	■	■	■		NEOG-400	Neogen TC
TPD	AML	FLT3	■	■			YUH1945	Yonsei University
	Cancer	AURKA	■	■			-	UPPTHERA
	NSCLC	EGFR mutation	■	■			-	Cyrus Therapeutics
	NSCLC	MET(a receptor tyrosine kinase)	■	■	■	■	ICT-1402	InnoCure Therapeutics
	NSCLC	PLK1	■	■	■		-	DANDI CURE
	NSCLC	PLK1	■	■	■	■	-	UPPTHERA
	NSCLC(EGFR mutation)	EGFR	■	■	■	■	J2H-2002	J2H Biotech
	NUT Midline Carcinoma	BRD4-NUT	■	■	■		ICT-905 / ICT-1410	InnoCure Therapeutics

PIPELINE DETAILS

Immunology



DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Antibody	Atopic dermatitis	CD200R1	█	█	█		-	AimedBio Inc
	Asthma, Atopic dermatitis	TCTP/HRF	█	█			-	Ewha Women's University
	Autoimmune diseases	C5	█	█	█	█	IM-101	ImmunAbs
	Severe allergic asthma	FcεR1α	█	█			FANHIE (Fatiabgen Allergen Non-binding Hybrid IgE; IgCw-γεκ)	FatiAbGen
	Multiple Sclerosis	CD40	█	█			PB-40N	PB Immune Therapeutics
	Paroxysmal nocturnal hemoglobinuria	C5	█	█	█	█	IM-101	ImmunAbs
	Pemphigus	CD40	█	█			PB101	PB Immune Therapeutics
	Rheumatoid Arthritis	sFas L	█				-	Seoul National University
	Rheumatoid Arthritis	Integrin αvβ3/ Siglec-15	█	█	█	█	MP2021	MEdPACTO
	Rheumatoid Arthritis	WARS1	█	█	█	█	M102AI	MirimGene
Bispecific antibody	Rheumatoid Arthritis, autoimmune diseases	OX40L, TNF-α	█	█	█	█	IMB-101	IMBilogics
Exosome	IBD	CARD9, TRIM62	█				-	ILIAS Biologics Inc.
Macromolecule (PEGylated, nanoparticle)	Ischemia reperfusion injury	ROS	█	█	█	█	Brixelle (PEGylated bilirubin 3 α)	BILIX
Microbiome	Rheumatoid Arthritis	n/d	█	█	█	█	BFD1R	BIFIDO
	Ulcerative colitis	VIP	█	█	█	█	LIV001	Liveome
Nanoparticle	Psoriasis, Contact dermatitis	Hyaluronic acid	█	█			-	Ajou University
Peptide (<5kDa)	Atopic dermatitis	FPR2	█	█	█	█	NCP112	Novacell Technology Inc.

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Peptide (<5kDa)	Multiple Sclerosis	FPR	■				WKYVMm	Sungkyunkwan University
Recombinant protein	IBD, SLE	IL-2	■	■	■		APB-R4	AprilBio
Small molecule	Asthma	IL-33	■	■			KB1518	AZCURIS
	Atopic dermatitis	STAT3	■	■	■		AD-1045	C&C Lab
	Atopic dermatitis	EGR1	■				-	Konkuk University
	Atopic dermatitis	TSLP/TSLPR	■	■	■	■	ATB1606	AmtixBio
	Autoimmune diseases	RIPK1	■	■	■		-	BiSiChem
	Crohn's disease	LRRK2	■	■			-	Chung Ang University
	Crohn's disease	AhR	■	■	■	■	PB542	Parenchyma Biotech
	IBD, RA, Psoriasis, Ankylosing spondylitis, IPF, NASH	PKM2	■	■	■		LMT-3833	Lmito Therapeutics
	Multiple Sclerosis	PKC η	■				-	Hanyang University
	Multiple Sclerosis	S1P1	■	■	■	■	CV-02	CUREVERSE
	Osteoarthritis	OSCAR	■				-	KaiPharm
	Psoriasis	CR-E1	■				CR-PSZ	Curogen Technology
	Psoriasis	Cannabinoid 1 receptor	■				-	Ajou University
	Psoriasis	IRAK1/4	■	■	■		-	DongWha Pharm
	Psoriasis, NASH	NLRP3	■	■			-	Ajou University
	Psoriasis, Rheumatoid Arthritis	Tyk2	■	■			-	CrystalGenomics, Inc.
	Systemic Sclerosis	SOS1/RAS	■				-	Kyungpook University
	Systemic Sclerosis	STAT6	■				-	Catholic University
	Ulcerative colitis	PYGL	■	■	■	■	BJ-80F	INNOVO Therapeutics
	Ulcerative colitis	PYGL	■	■	■	■	BJ-80F	INNOVO Therapeutics
Ulcerative colitis	15-PGDH	■	■	■		INV-008	INNOVO Therapeutics	
Ulcerative colitis, Crohn's disease	PIN1	■	■			-	PimedBio	
TPD	Systemic Lupus Erythematosus	IRAK4	■	■			-	Gachon University

PIPELINE DETAILS

Metabolic disorders



DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
AAV	NASH	CR-P1	■	■	■		CR-G001	Curogen Technology
Antibody	NASH	Resistin, CAP1	■	■			-	Seoul National University Hospital
Fusion protein	NASH	TLR5	■	■	■		MSP-306	MediSpan
	Obesity	GDF15	■	■	■	■	YH34160	Yuhan
Microbiome	Obesity	<i>Bacteroides vulgatus</i> , <i>Roseburia intestinalis</i> , <i>Akkermansia muciniphila</i>	■	■	■		KBL981, KBL982, KBL983	Ko Biolabs
miRNA	Sarcopenia	Atrogin-1	■	■			AVTM201	AVENTI Inc.
mRNA	Duchenne muscular dystrophy	NMD	■	■			-	RiboTech
Peptide (<5kDa)	NASH	CXCR7	■				-	Yonsei University
	Sarcopenia	TLQP21	■				-	Asan Medical Center
Recombinant protein	Acromegaly	hGH receptor	■	■	■		ALT-B5	Alteogen Inc.
	Congenital hyperinsulinism	Glucagon	■	■	■	■	HM15136	Hanmi Pharm. Co., Ltd.
	NASH	FGF21, GLP-1, α-cytokine, GCG	■	■	■		OGB21502	Onegene Biotechnology
	NASH	FGF21, GLP-1, α-cytokine, GCG	■	■	■	■	OGB21502	Onegene Biotechnology
	Sarcopenia	CLCF1	■				-	KRIBB
	Sarcopenia	NOTCH1	■	■			NB-101	NUON Bio
shRNA/peptide	Obesity	FABP4, FABP5	■	■			-	Hanyang University
Small molecule	Bladder disease	BK _{Ca}	■	■			-	GIST

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Small molecule	Cirrhosis	SMS1	■				-	Seoul National University
	Diabetes	PPAR γ , AMPA	■ ■				-	Seoul National University Hospital
	Diabetes	SGLT1/2	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				JP-2266	Jeil Pharmaceutical Co., Ltd.
	Diabetes	CB1R	■ ■ ■				-	Sungkyunkwan University
	Diabetes, Obesity	Atypical PKC	■ ■ ■				-	Yonsei University
	Diabetes, Obesity	PPAR γ S273	■ ■ ■				-	KRIBB
	Liver fibrosis	LPAR1	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				AMS-III-1086	AM Sciences
	Liver fibrosis	DYRK1B	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				KS-40070	TheraSid Bioscience
	NASH	USP1	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				WUXI1	Yonsei University Health System
	NASH	MLKL	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				-	Hanyang University
	NASH	TFEB	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				MSL-7	LysoTech
	NASH	STK25	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				KSTK-01092	KRICT
	NASH	KARS1	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				-	Zymedi
	NASH	HTR2A	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				GM-60106	JD Bioscience
	Obesity	IP6K	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				-	KAIST
	Obesity	A2AAR, A3AR	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				-	Seoul National University
	Obesity	ALK7	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				-	Gachon University Gil Medical Center
	Type II Diabetes	PAK4	■ ■ ■ ■ ■ ■ ■ ■ ■ ■				ND201651	Jeonbuk National University

PIPELINE DETAILS

Neurosciences



DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
AAV	Amyotrophic Lateral Sclerosis	n/d	■	■	■		C0301	HELIXMITH
	Neuropathic Pain	GCH1	■				AAV-h/r-shGCH1	Yonsei University
	Spinal cord injury	hLHX3:T2A:hGSTA4	■	■	■		LYH-001	Stand Up Therapeutics
AAV (CRISPR/CAS9)	Charcot-Marie-Tooth disease type 1A	PMP22	■	■	■	■	TGT-001	ToolGen, Inc.
AAV (RNA trans-splicing)	Rett syndrome	MeCP2	■	■			-	Rznomics Inc.
AAV (TaRGET)	Huntington's disease	HTT gene(CAG-repeat)	■				-	GenKOre
Antibody	Myasthenia gravis	Acetylcholine receptor	■	■	■		-	Medytox
ASO	FCDII Refractory epilepsy	eIF4E	■	■	■	■	SVG102_N075, SVG102_N182	SoVarGen Co., Ltd.
	Pediatric epilepsy	MTOR	■	■	■		SVG105	SoVarGen Co., Ltd.
Exosome	Parkinson's disease	Parkin, PGC-1α	■				-	Sungkyunkwan University
Peptide (<5kDa)	Amyotrophic lateral sclerosis	Zn ²⁺	■	■	■		ZC301,325, 311	Zincure
	Chronic Pain	TRPV1	■	■			-	Gachon University
	Parkinson's disease	LRRK2	■	■	■		-	Whan Inn Pharm. Co., Ltd.
PNA	Amyotrophic Lateral Sclerosis	STMN2	■	■			-	OliPass Corporation
	Parkinson's disease	TLR2	■	■			-	SEASUN Therapeutics, Inc.
ROS scavenger	Cerebral infarction	ROS	■	■	■	■	CX301	CENYX Biotech

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Small molecule	Amyotrophic Lateral Sclerosis	SOD1					PRG-A-04	PRG Science&Technology
	Genetic Hearing Loss	KV7.4					B2961, DWP215130	Yonsei University
	Hearing loss	DRAK1, ADCK4, CDC42BPA					KPLO-2004	Kyungpook University
	Major depressive disorder	A2 adrenergic, NDRI					-	Kyung Hee University
	Parkinson's disease	α-synuclein					-	Hanyang University
	Parkinson's disease	ASK1					-	KRICT
	Parkinson's disease	TAS2R					DM3159	DIGMBIO
	Parkinson's disease	PIP5Ky					-	DGMIF
	Parkinson's disease	c-Abl/LRRK2					FB418	1st Biotherapeutics, Inc
	Progressive supranuclear palsy, 4R tauopathies	4R TAU oligomer					DTC0148	KIST
TPD	Parkinson's disease	α-synuclein					-	AUTOTAC Bio Inc.

PIPELINE DETAILS

Ophthalmology



DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
AAV	Autosomal dominant Retinitis pigmentosa (adRP)	P23H	■	■	■	■	RZ-004	Rznomics Inc.
	AMD	sVGF1	■	■	■	■	CRG-02 (AAV2-sVEGFRv-1)	CdmoGen
	Genetic Retinal disease	PDE6B	■				-	Asan Medical Center
	Retinitis Pigmentosa	RPGR	■				-	ENCell
AAV (CRISPR)	Retinitis Pigmentosa	IMPDH1	■				-	Ulsan University
AAV (CRISPR/CAS9)	Retinitis Pigmentosa	EYS c.4957dupA	■				-	Sungkyunkwan University
AAV (CRISPR/CAS9, pegRNA)	Leber Congenital Amaurosis	CEP290	■				-	Seoul National University
Antibody	Degenerative Retinal Disease	PROX1	■				-	KAIST
	AMD	TIE-2	■	■	■	■	PMC-403	PharmAbcine Inc
	Dry AMD	C5	■	■			-	ImmunAbs
	wet AMD/DR	Ang2-targeting Tie2 receptor	■	■	■	■	NTB-101	NEORTES BIO
ASO	Avellino corneal dystrophy	Human TGFβ1 ^{R124H}	■	■	■		MDC-101	MediciBio
Recombinant Protein	Dry eye disease	HAPLN1	■	■	■		HS-601	HAPLN Science
siRNA	Retinitis Pigmentosa	RORβ	■	■	■		-	Olix Pharmaceuticals
Small molecule	AMD	PDK4	■				-	Kyungpook University
	AMD	PKCα, Wnt/β-catenin	■	■	■	■	CGK012	Arez

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Small molecule	Diabetic retinopathy	TGase2	■				-	DGMIF
	Diabetic retinopathy	TRAP1	■	■	■		-	SMARTIN BIO Inc.
	Diabetic retinopathy	SGLT2	■	■	■	■	Enavogliflozin	Daewoong Therapeutics Inc.
	Dry AMD	Autophage	■	■			JS-017	VasThera
	Dry AMD	RIPK1	■	■	■	■	MTS-001	Mother's Pharmaceutical
	Glaucoma, Ocular hypertension	A3AR	■	■	■	■	FM101	Future Medicine Co., Ltd.
	Leber hereditary optic neuropathy	NQO1	■	■			CR-series	CUROME BIOSCIENCES
	Retinal vein occlusion	Co, Fe	■				-	UNIST

PIPELINE DETAILS

Respiratory



DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Antibody	Pulmonary emphysema	Robo1	■				-	Asan Medical Center
Small molecule	COPD	BLT2	■	■			LMT-1013	Korea University
	IPF	CHIT1	■	■			INV-005	INNOVO Therapeutics
	IPF	ALK5	■	■	■	■	AA2-077	Autotelic Bio
Peptide (<5kDa)	IPF	Integrin $\alpha\beta$ -3,5,6	■	■			NPT-0025	NEXEL
Antibody	Pulmonary fibrosis	FBFP-101-T	■	■			FBPF-11X	FNC Biotech
Exosome	Bronchopulmonary Dysplasia	Ago2	■	■			-	Samsung Medical Center
Small molecule	IPF	Prolyl-tRNA synthetase (PRS)	■	■	■	■	DWN12088	Daewoong Pharmaceutical Co., Ltd.
	IPF	Autotacxin	■	■	■	■	BBT-877	Bridge Biotherapeutics, Inc
	IPF	HMGB1	■	■	■	■	sb1703	SPARK Biopharma
	IPF	ARPC2	■	■	■		-	Sapiensbio
	Pneumonia	Foxj1	■	■			-	Chonnam National University

Cardiovascular



RESPIRATORY

CARDIOVASCULAR

OTHERS

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
AAV	Pulmonary hypertension	FGF12	■	■			-	GluGene Therapeutics
Antibody	Pulmonary hypertension	KARS1	■	■	■	■	ZMA001	Zymedi
miRNA	Acute heart failure	miRNA (miR-A, 128-3p, 34a-5p, B, 203a-3p)	■	■	■		ANT-A/B	RegenInnopharm
pDNA-micoparticle conjugate	Peripheral arterial disease, Diabetic peripheral neuropathy	HGF	■	■	■		GB107	G&P Bioscience
Peptide (<5kDa)	Pulmonary hypertension	PP1	■	■	■	■	WK7003	NadianBio
Small molecule	Congestive heart failure, Chronic renal disease	pendrin	■	■			A4948	Yonsei University
	Aortic Stenosis	DPP-4	■	■	■	■	Evogliptin	REDNVIA
	Aortic stenosis	TNAP	■				-	REDNVIA
	Pulmonary hypertension	PDGFR	■	■	■		VRN130184	Voronoj, Inc

Others



DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Antibody	Acute Kidney Injury	Tie2	■	■	■		-	MabTics
	Hair Loss	CXCL12	■	■			EPI-005	EpiBiotech
	Osteoporosis	Cathepsin K	■				-	Ewha Women's University

PIPELINE DETAILS

DRUG CLASS	INDICATION	TARGETS	STAGE				PRODUCT CODE	COMPANY
			Discovery	Pre	Ph1	Ph2		
Bispecific antibody	Organ Failure (incompatible blood type)	ABO BCR, CD3	■				-	KAIST
Mitochondria	Hearing loss	mitochondria	■	■	■		-	PAEAN Biotechnology
MRI contrast agent	MRI contrast agent	Gd-ligand	■	■	■	■	HNP-2006	Hana Pharm Co., Ltd.
	MRI contrast agent	Gd-ligand	■	■	■		-	PharmGen Science, Inc.
	MRI contrast agent	n/d	■	■	■	■	NEMO-103	INVENTERA Pharmaceuticals
Peptide (<5kDa)	Achondroplasia	NPR-B	■	■	■	■	PND3174	Pepton, Inc
	Diabetic foot ulcer	pre-let7 miRNA	■	■	■	■	LPH105	RegenInnopharm
	Wilson disease	Cu ²⁺	■	■	■		ARB-101	ARBORMED Pharmaceuticals
Recombinant protein	Degenerative arthritis	Bmp7	■	■	■	■	DRT-01	Darnatein
	Gout	Uric Acid	■	■	■	■	PAT101	ProAbTech
	Haemophilia A, B	Recombinant coagulation factor VIIa	■	■	■	■	TU7710	Tium BIO
	Others	Hyaluronidase	■	■	■	■	ALT-BB4	Alteogen Inc.
siRNA	Androgenetic alopecia	Androgen receptor	■	■	■	■	OLX72021	Olix Pharmaceuticals
Small molecule	Androgenetic alopecia	GFRA1	■	■	■	■	JW0061	JW Pharmaceutical
	Cholelithiasis	Gallstone	■	■	■		2-methoxy-6-methylpyridine (MMP)	Surginex
	Dyspepsia	Ghrelin receptor	■				KARI101, 201	Kyungpook University
	Hyperhidrosis	Muscarinic M3	■	■	■	■	EFL-1101	eFlask
	Lymphedema	Nrf2	■	■			-	RAPPELER
	Osteoarthritis	Tankyrase	■				-	Seoul National University
	Osteoarthritis	Caspase	■	■	■	■	INV-1498	INNOVO Therapeutics
	Progeria syndromes	Progerin-Lamin A PPI	■	■	■	■	-	PRG Science&Technology

