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ChemExpress

APIs & Intermediates

Product Handbook

Your Reliable Global **CRO & CDMO** Partner

ChemExpress

Founded in 2006, Shanghai Haoyuan Chemexpress Co., Ltd. ("ChemExpress") specializes in offering CRO & CDMO services for pharmaceutical and biotech companies, focusing on small molecules, biologics and new modalities such as ADCs/XDCs, peptides and PROTACs. Our comprehensive platform is engaged in the research and development, manufacturing and supply of regulatory starting materials, novel building blocks, intermediates, reference compounds, APIs and drug products. We support our clients' projects from early drug discovery, process development to commercialization.

Over the past 19 years, we have established a ICH compliant state-of-the-art QA/QC systems. For pharmaceutical manufacturing, we provide our clients with high-quality products and CMC services across the entire life-cycle of drug development.

Locations



- 6 R&D Centers
- 2 Intermediate & API Manufacturing Sites
- 1 Drug Product Manufacturing Site
- 1 XDC CDMO Manufacturing Site
- 8 Business Centers



Enabling Technologies



High throughput experimentation (HTE)



Solid state chemistry research



Photochemistry



Flow chemistry



Biocatalysis



Preparative chromatography



Spray dried dispersion



Hot melt extrusion



Team



3,500+
Employees



2,000+
Scientists



650+
Master and above



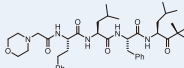
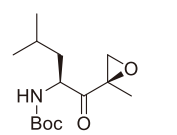
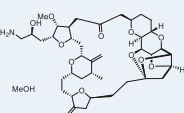
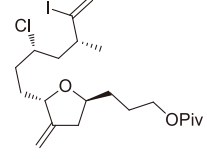
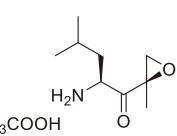
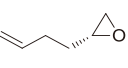
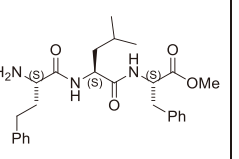
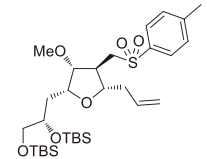
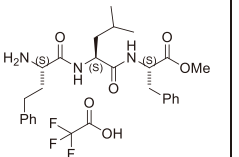
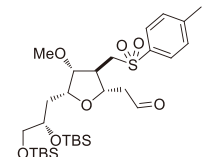
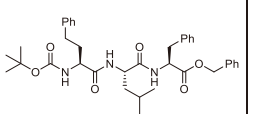
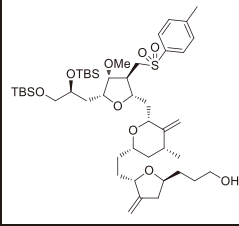
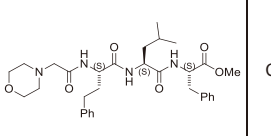
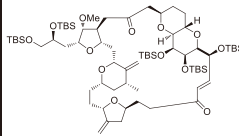
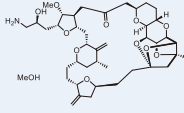
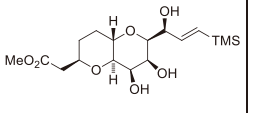
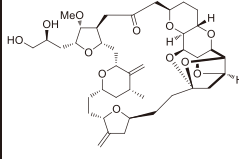
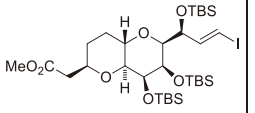
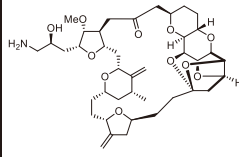
APIs List

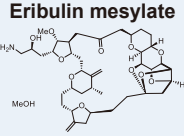
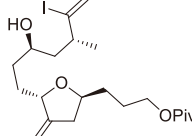
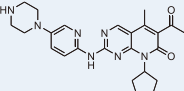
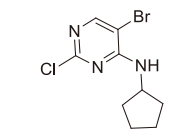
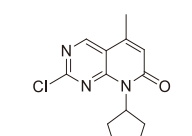
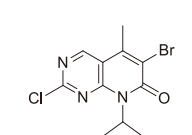
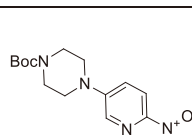
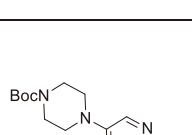
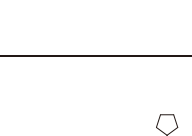
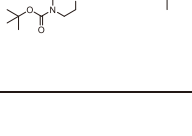
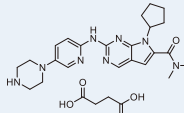
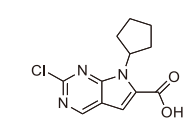
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Oncology	1	Axitinib	319460-85-0	Lab scale
	2	Eribulin Mesylate	441045-17-6	ASMF/ US DMF
	3	Lurbinectedin	497871-47-3	Lab scale
	4	Palbociclib	571190-30-2	Commercial
	5	Ribociclib	1211441-98-3	Commercial
	6	Trabectedin	114899-77-3	ASMF/ US DMF
Cardiovascular	7	Sacubitril/Valsartan	936623-90-4	Commercial
	8	Ticagrelor	274693-27-5	Pilot
Immune System	9	Crisaborole	906673-24-3	China DMF
Gastro-Intestinal	10	Elobixibat	439087-18-0	Pilot
	11	Eluxadolone	864821-90-9	Pilot
	12	Fexuprazan	1902954-60-2	Pilot
	13	Ilaprazole	172152-36-2	Pilot
	14	Tegoprazan	942195-55-3	Commercial
	15	Vonoprazan Fumarate	881681-01-2	Commercial
Anti-Infective	16	Avibactam Sodium	1192500-31-4	Pilot
	17	Baloxavir Marboxil	1985606-14-1	Pilot
	18	Bifonazole	60628-96-8	Commercial
	19	Lenacapavir	2189684-44-2	Pilot
Central Nervous System	20	Pitolisant Hydrochloride	903576-44-3	Lab scale
	21	Vatiquinone	1213269-98-7	Commercial
Endocrinology and Metabolic Disease	22	Bazedoxifene Acetate	198481-33-3	Japan DMF
	23	Teneligliptin Hydrobromide	1572583-29-9	Commercial

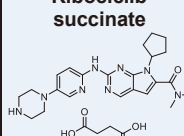
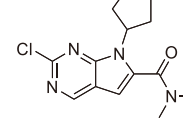
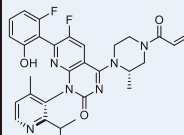
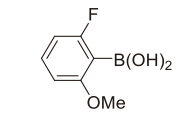
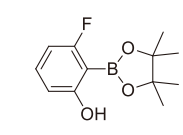
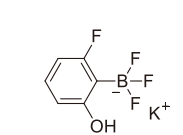
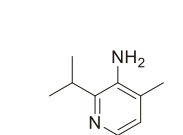
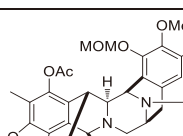
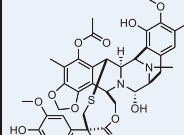
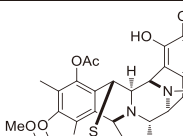
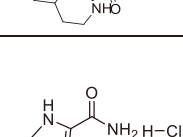
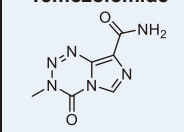
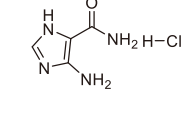
Therapy Area	No.	Product Name	CAS.	Status
Musculoskeletal Diseases	24	Alfacalcidol	41294-56-8	Lab scale
	25	Calcifediol Monohydrate	63283-36-3	Lab scale
	26	Calcitriol	32222-06-3	Lab scale
	27	Doxercalciferol	54573-75-0	Lab scale
	28	Eldecalcitol	104121-92-8	Lab scale
	29	Maxacalcitol	103909-75-7	Lab scale
	30	Paricalcitol	131918-61-1	Lab scale
Dermatology	31	Calcipotriol Monohydrate	147657-22-5	Commercial
	32	Calcipotriol	112965-21-6	Commercial
	33	Tacalcitol	57333-96-7	Lab scale
Other Therapy Areas	34	Flibanserin	167933-07-5	Lab scale

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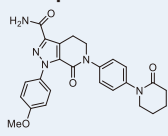
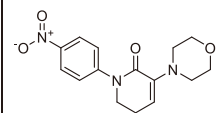
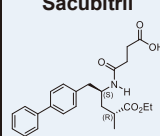
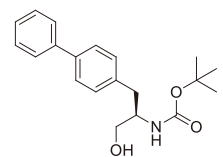
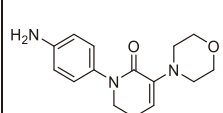
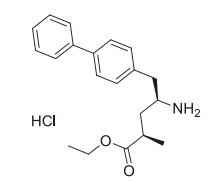
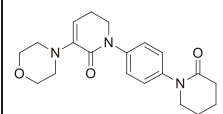
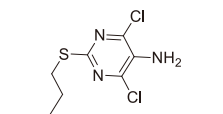
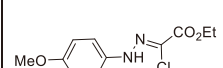
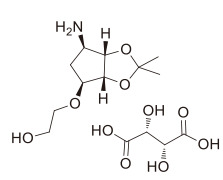
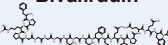
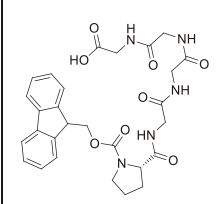
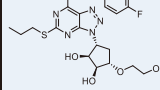
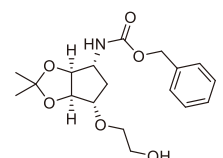
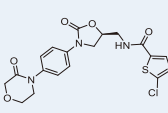
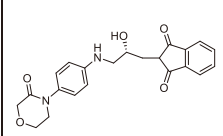
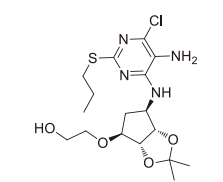
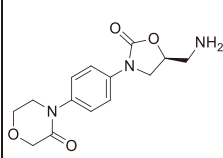
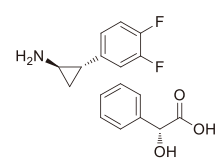
Intermediates List

Oncology							
Category	CAS.	Structure	Status	Category	CAS.	Structure	Status
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	247068-85-5		Commercial		137688-20-1		Commercial
	868539-98-4		Commercial		1808153-91-4		Commercial
	868539-99-5		Commercial		1808153-90-3		Commercial
	868540-15-2		Lab scale		2835443-65-5		Commercial
	1140908-89-9		Commercial		253128-14-2		Commercial
Eribulin mesylate 	871360-33-7		Commercial	253128-15-3		Commercial	
	157322-83-3		Commercial	253128-41-5		Commercial	

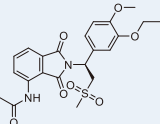
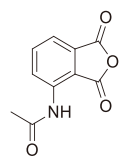
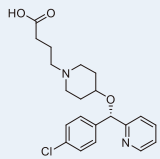
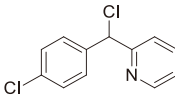
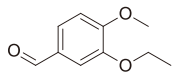
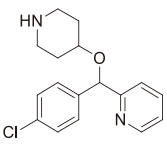
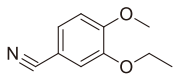
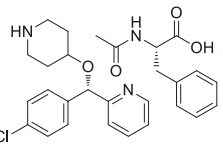
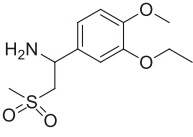
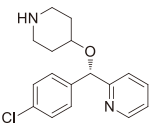
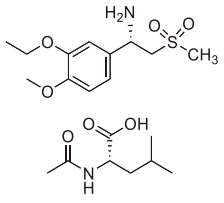
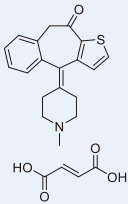
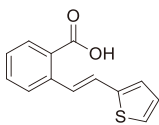
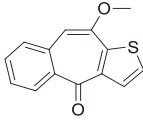
Category	CAS.	Structure	Status
Eribulin mesylate 	157322-47-9		Commercial
Palbociclib 	733039-20-8		Commercial
	1013916-37-4		Commercial
	1016636-76-2		Commercial
	571189-16-7		Commercial
	571188-59-5		Commercial
	571188-82-4		Pilot
866084-31-3		Commercial	
Ribociclib succinate 	1211443-58-1		Commercial

Category	CAS.	Structure	Status
Ribociclib succinate 	1211443-61-6		Commercial
Sotorasib 	78495-63-3		Commercial
	1534369-41-9		Commercial
	2252415-10-2		Commercial
	1698293-93-4		Lab scale
	182201-71-4		US DMF
Trabectedin 	114899-80-8		Commercial
	72-40-2		Commercial
Temozolomide 	72-40-2		Commercial

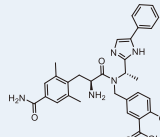
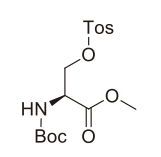
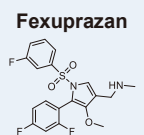
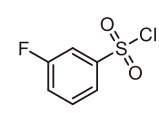
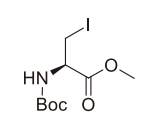
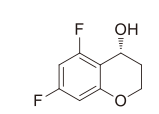
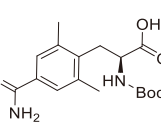
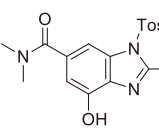
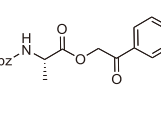
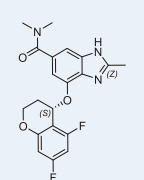
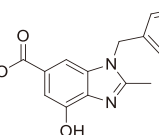
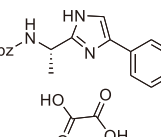
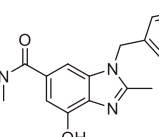
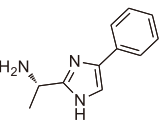
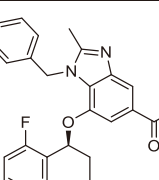
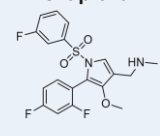
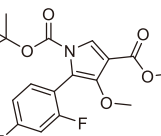
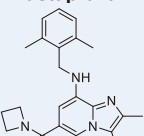
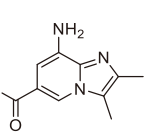
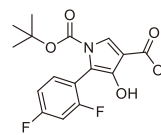
Cardiovascular

Category	CAS.	Structure	Status	Category	CAS.	Structure	Status
Apixaban 	503615-03-0		Commercial	Sacubitril 	1426129-50-1		Commercial
	1267610-26-3		Commercial		149690-12-0		Commercial
	545445-44-1		Commercial		145783-15-9		Commercial
	27143-07-3		Commercial		376608-65-0		US DMF
Bivalirudin 	1450625-21-4		Commercial	Ticagrelor 	274693-54-8		Commercial
Rivaroxaban 	446292-07-5		Commercial	376608-74-1		Commercial	
	898543-06-1		Commercial	376608-71-8		Commercial	

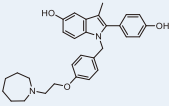
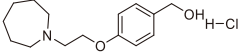
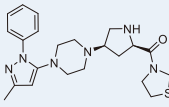
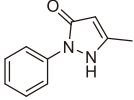
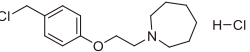
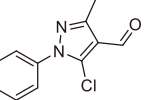
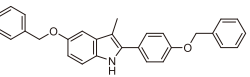
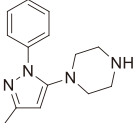
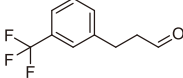
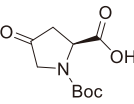
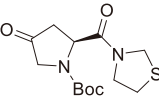
Immune System

Category	CAS.	Structure	Status	Category	CAS.	Structure	Status
Apremilast 	6296-53-3		Commercial	Bepotastine 	142404-69-1		Commercial
	1131-52-8		Commercial		122368-54-1		Commercial
	60758-86-3		Commercial		210095-66-2		Commercial
	253168-94-4		Commercial		201594-84-5		Commercial
	608141-43-1		Commercial		Ketotifen fumarate 	1966-89-8	
			59743-84-9			Commercial	

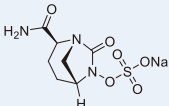
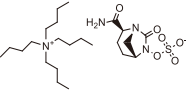
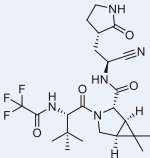
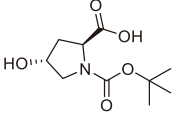
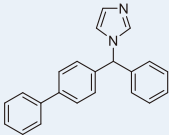
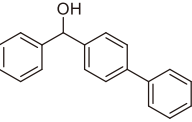
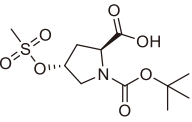
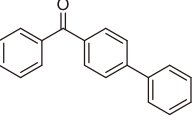
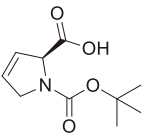
Gastro-Intestinal

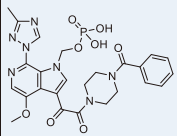
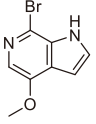
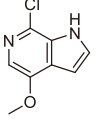
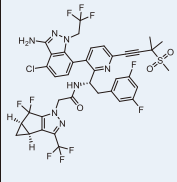
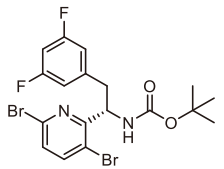

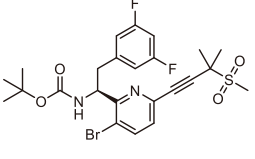
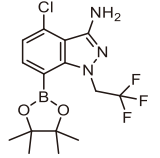
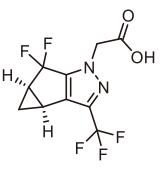
Category	CAS.	Structure	Status	Category	CAS.	Structure	Status	
Eluxadoline 	56926-94-4		Commercial	Fexuprazan 	701-27-9		Commercial	
	93267-04-0		Commercial		1270294-05-7		Commercial	
	623950-02-7		Commercial		942195-86-0		Commercial	
	6530-41-2		Commercial		Tegoprazan 	1640981-19-6		Commercial
	1993394-57-2		Commercial			1640981-20-9		Commercial
	864825-23-0		Commercial			2975125-72-3		Commercial
Fexuprazan 	2258638-53-6		Commercial	Zastaprazan 	2892564-07-5		Lab scale	
	2258638-52-5		Commercial					

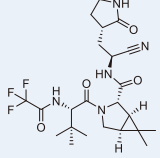
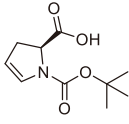
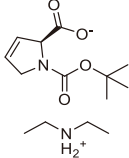
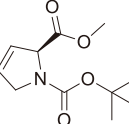
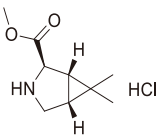
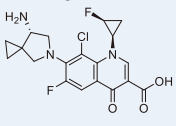
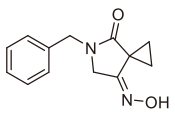
Endocrinology and Metabolic Disease

Category	CAS.	Structure	Status	Category	CAS.	Structure	Status
Bazedoxifene 	328933-65-9		Commercial	Teneligliptin hydrobromide  2.5 HBr	89-25-8		Commercial
	223251-25-0		Commercial		947-95-5		Commercial
	198479-63-9		Commercial		401566-79-8		Commercial
Cinacalcet hydrochloride	21172-41-8		Commercial		84348-37-8		Commercial
				401564-36-1		Commercial	

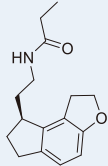
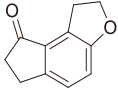
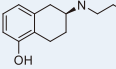
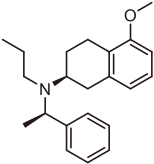
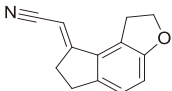
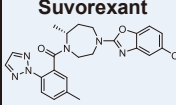
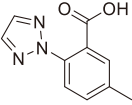
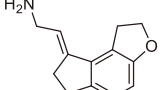
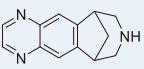
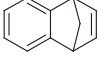
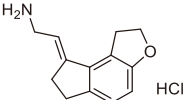
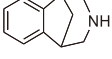
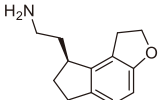
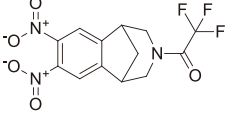
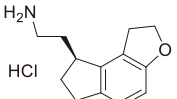
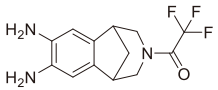
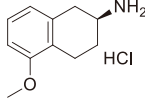
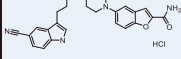
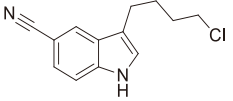
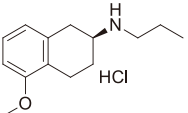
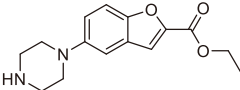
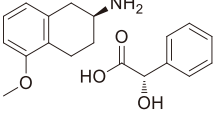
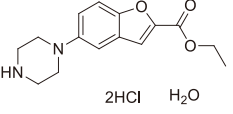
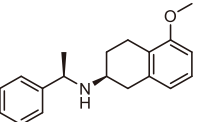
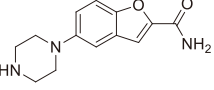
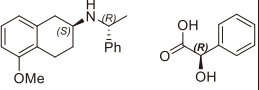
Anti-Infective

Category	CAS.	Structure	Status	Category	CAS.	Structure	Status
Avibactam sodium 	1192651-80-1		Commercial	Paxlovid 	13726-69-7		Commercial
Bifonazole 	7598-80-3		Commercial		202477-59-6		Commercial
	2128-93-0		Commercial		51154-06-4		Commercial

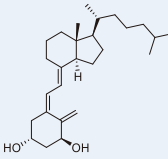
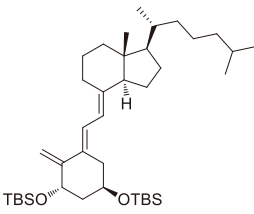
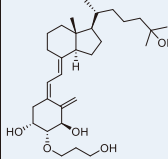
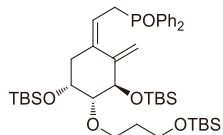
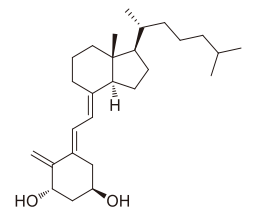
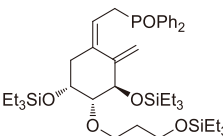
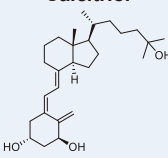
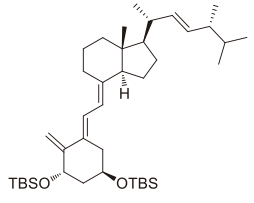
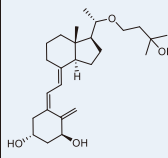
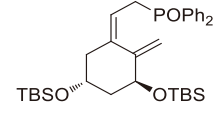
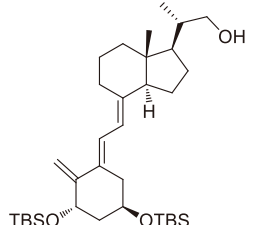
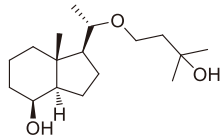
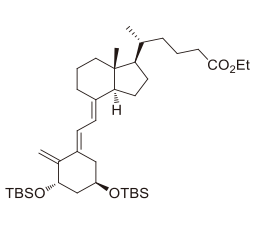
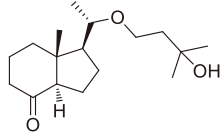
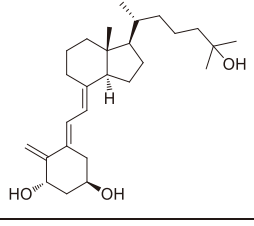
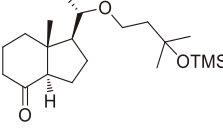
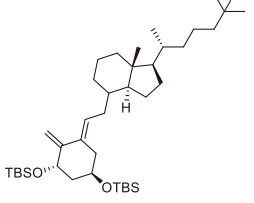
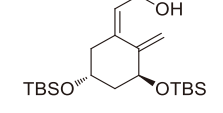
Category	CAS.	Structure	Status
Fostemsavir 	619331-35-0		lab scale
	446284-32-8		lab scale
Lenacapavir 	1620056-47-4		Pilot
	2109226-54-0		Commercial
	2189684-54-4		Commercial
	2189684-53-3		Commercial
	1620056-83-8		Commercial

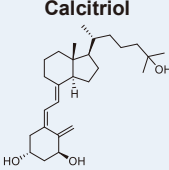
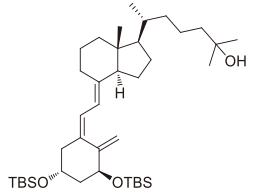
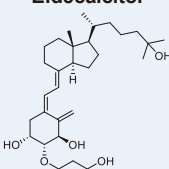
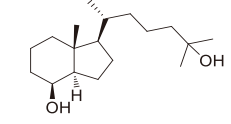
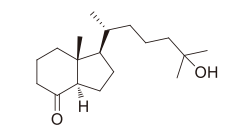
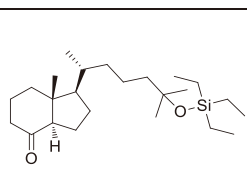
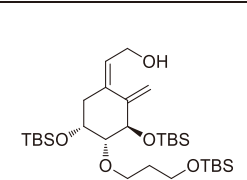
Category	CAS.	Structure	Status
Paxlovid 	90104-21-5		Commercial
	800412-56-0		Commercial
	74844-93-2		Commercial
	565456-77-1		Commercial
Sitafloxacin hydrate 	129306-06-5		Commercial

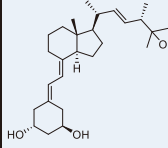
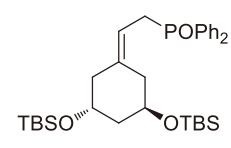
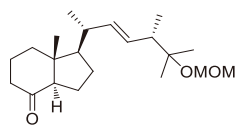
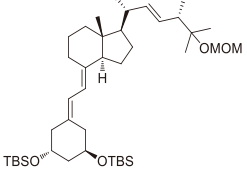
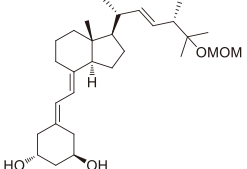
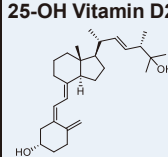
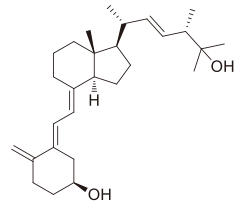
Central Nervous System

Category	CAS.	Structure	Status	Category	CAS.	Structure	Status
Ramelteon 	196597-78-1		Commercial	Rotigotine 	2454317-15-6		Commercial
	196597-79-2		Lab scale	Suvorexant 	956317-36-5		Commercial
	1029134-74-4		Lab scale	Varenicline 	4453-90-1		Commercial
	227179-22-8		Lab scale		230615-52-8		Commercial
	196597-81-6		Lab scale		230615-59-5		Commercial
	196597-80-5		Lab scale		230615-69-7		Commercial
58349-17-0		Commercial	Vilazodone 		143612-79-7		Commercial
93601-86-6		Commercial		163521-20-8		Commercial	
439133-67-2		Pilot		1422956-31-7		Commercial	
1403690-99-2		Commercial		183288-46-2		Commercial	
N/A		Commercial					

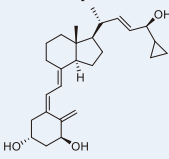
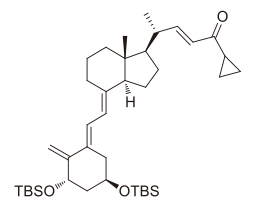
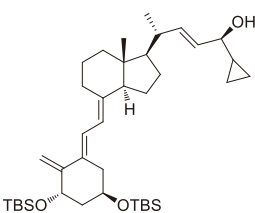
Musculoskeletal Diseases

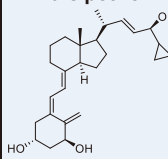
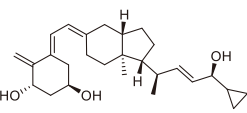
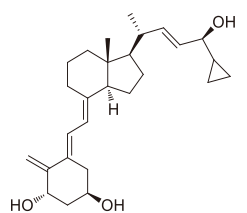
Category	CAS.	Structure	Status	Category	CAS.	Structure	Status
Alfacalcidol 	112670-85-6		Pilot	Eldecalcitol 	200636-54-0		Lab scale
	65445-14-9		Pilot		2189732-17-8		Lab scale
Calcitriol 	111594-58-2		Pilot	Maxacalcitol 	81522-68-1		Lab scale
	128387-35-9		Pilot		192573-37-8		Lab scale I
	169900-32-7		Pilot		884488-07-7		Lab scale
	73837-24-8		Pilot		192573-33-4		Lab scale
140710-98-1		Pilot	81506-24-3		Lab scale		

	CAS.	Structure	Status
Calcitriol 	140710-96-9		Pilot
Eldecalcitol 	66774-84-3		Lab scale
	70550-73-1		Lab scale
	144848-24-8		Lab scale
	200636-42-6		Lab scale

Category	CAS.	Structure	Status
Paricalcitol 	139356-39-1		Lab scale
	100858-26-2		Lab scale
	1435939-17-5		Lab scale
	1023889-38-4		Lab scale
25-OH Vitamin D2 	79396-56-8		Lab scale







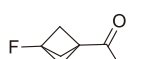
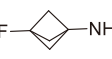
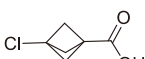



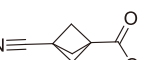
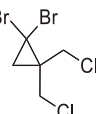
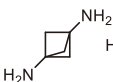
Dermatology

Category	CAS.	Structure	Status
Calcipotriol 	112849-17-9		Commercial
	112849-27-1		Commercial



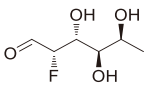
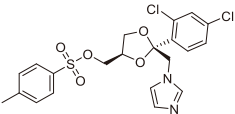
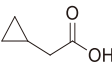
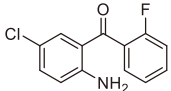
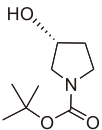
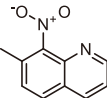
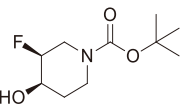
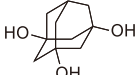
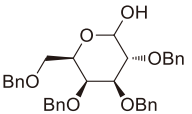
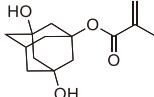
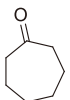
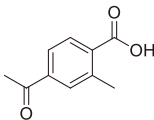
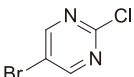
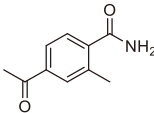
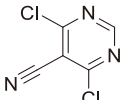
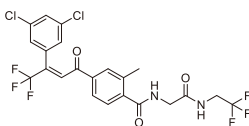
Category	CAS.	Structure	Status
Calcipotriol 	910133-70-9		Commercial
	113082-99-8		Commercial

Products protected by valid patents are not offered for sale in countries where the sale of such products constitutes a patent infringement and its liability is at buyer's risk.

BCP Series

Category	CAS.	Structure	Status	Category	CAS.	Structure	Status
BCP Series	115913-30-9		Commercial	BCP Series	156329-77-0		Lab scale
	56842-95-6		Commercial		156329-71-4		Lab scale
	2231676-10-9		Commercial		83249-10-9		Lab scale
	146038-53-1		Lab scale		1826900-79-1		Lab scale
	156329-73-6		Lab scale		22287-35-0		Lab scale
	83249-02-9		Lab scale		22287-28-1		Lab scale
	156329-62-3		Lab scale		98577-44-7		Pilot
	147927-61-5		Commercial				

Other Intermediates

Category	CAS.	Structure	Status	Category	CAS.	Structure	Status
Other Intermediates	594-16-1		Commercial	Other Intermediates	65967-52-4		Lab scale
	70763-62-1		Commercial		134071-44-6		Lab scale
	5239-82-7		Pilot		784-38-3		Commercial
	109431-87-0		commercial		7471-63-8		Lab scale
	1174020-40-6		Commercial		99181-50-7		Commercial
	6386-24-9		Lab scale		115522-15-1		Commercial
	502-42-1		Commercial		55860-35-0		Commercial
	32779-36-5		Commercial		1095275-06-1		Lab scale
	5305-45-3		Commercial		1422465-94-8		Pilot
				Fluralaner			

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Analytical Chemistry

- 6,000+ projects
- 6,000+ released batches/year
- 10,000+ method library

Stability Studies

- 300+ ongoing stability studies
- 180+ completed projects for IND/ANDA

Key Analytical instruments	Quantity
UPLC/HPLC	275
LCMS&UPLCMS	31
2D-LCMS	1
LCMSMS	1
QE&GCMSMS	2
GC	39
GCMS	1
UPCC	2
IC	1
ICPMS	2
pre-HPLC	28
SFC	6
NMR	9
XRPD	2
DSC	2
TGA	1
PSD	1
CASE Ultra	1



Quality System & EHS

Quality Management System (QMS)

- We have passed several regulatory authority inspections, including 1 US FDA inspections with zero 483 observations, 6 inspections by China NMPA and 4 joint State and Provincial NMPA on-site PAI and GMP inspections for NDA by MAH
- Additionally, we have passed over 350 client audits and 5 EU third-party QP GMP audits since 2021

350+

Clients' Audits

11

Regulatory Inspections

1

US FDA Inspection

5

EU QP Audits



ACS Green Chemistry Institute
Pharmaceutical Roundtable



EHS

- Achieves silver medal in the EcoVadis sustainability rating
- A member of the ACS Green Chemistry Institute Pharmaceutical Roundtable (GCIPR)
- Process safety labs focus on data-driven safety assessment to enhance intrinsic safety



Capacity (Compliant with FDA/EMA/NMPA regulatory standard)



Drug Substance Process Development & Manufacturing

Anhui Ma'anshan R&D Center

ADC Payload-Linkers & HPAPIs Process Development and Manufacturing

- 5 GMP HPAPI production lines (OEB5, OEL 0.01 $\mu\text{g}/\text{m}^3$) with a total volume over 4,000L
- 2 API GMP kilogram scale production line; 6 Class D clean room in total, scale up to kilograms (commercial scale)
- Multiple negative pressure isolators, prep-HPLC and Lyophilizers



Anhui Ma'anshan GMP Manufacturing Site

RSMs, Advanced Intermediates, APIs and Peptides Process Development and Manufacturing

- Number of reactors: ~170, range from 100L-8000L
- Total reactor volume: ~483,000L
- Reactions: Hydrogenation reaction, Grignard reaction, oxidation reaction, photoreaction, high temperature reaction(240°C) and deep cryogenic reaction (-80°C)



Shandong Heze Manufacturing Site

Specialty chemicals, Intermediates Manufacturing

- Reactors: ~50 reactors range from 500L - 5,000L
- Scale up to hundreds of kgs per batch
- Total reactor volume: ~115,000L



Drug Product Process Development & Manufacturing

Jiangsu Qidong GMP Manufacturing Site

Drug Product Process Development and Manufacturing

- Total area: ~139,930 ft²
- Oral solid dosages: 4 commercial-scale workshops, ~1 billion units per year
- Semi-solid topical dosages: 2 commercial-scale workshops, ~40 million tubes per year
- Solid dispersion: 1 large scale topical preparation line
- Formulation development and manufacturing: tablets, hard capsules, granules, powders, creams, ointment and gels, including anti-tumor drugs



XDC Process Development & Manufacturing

Chongqing XDC CDMO GMP Manufacturing Site

XDC Process Development and Manufacturing

- 1 Antibody Line: 200L, 500L, 2000L, reserve a number of 2000L production line
- 1 Conjugation/ADC DS Line: 50L, 100L, 200L, 300L, 500L
- 2 DP filling Lines (with Lyophilizer) : 10m², 25m²
- ADC DS: 1500kg/year ; ADC DP: 2 million bottles/year
- XDC types: PDC, DAC, AOC

Client-Focused Innovation-Driven



RSM



Intermediate




API / HPAPI



Drug Product

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