

Making

Better

Bukwang Pharm

IR Report
2022



Tomorrow

2022

2022.1.1~2022.12.31

Disclaimer

This presentation contains forward-looking statements about Bukwang Pharmaceutical Co., Ltd. Such statements are related to incidents of the future and not of the past, and include business status and financial performance that the company predicts for the future. The predictions and estimations have inherent uncertainties and risks, so please keep in mind that the company's actual future performance may differ from the estimated performance. The inherent uncertainties and risks include changes in relevant rules and regulations, changes in general business environment and fluctuations in the financial market.



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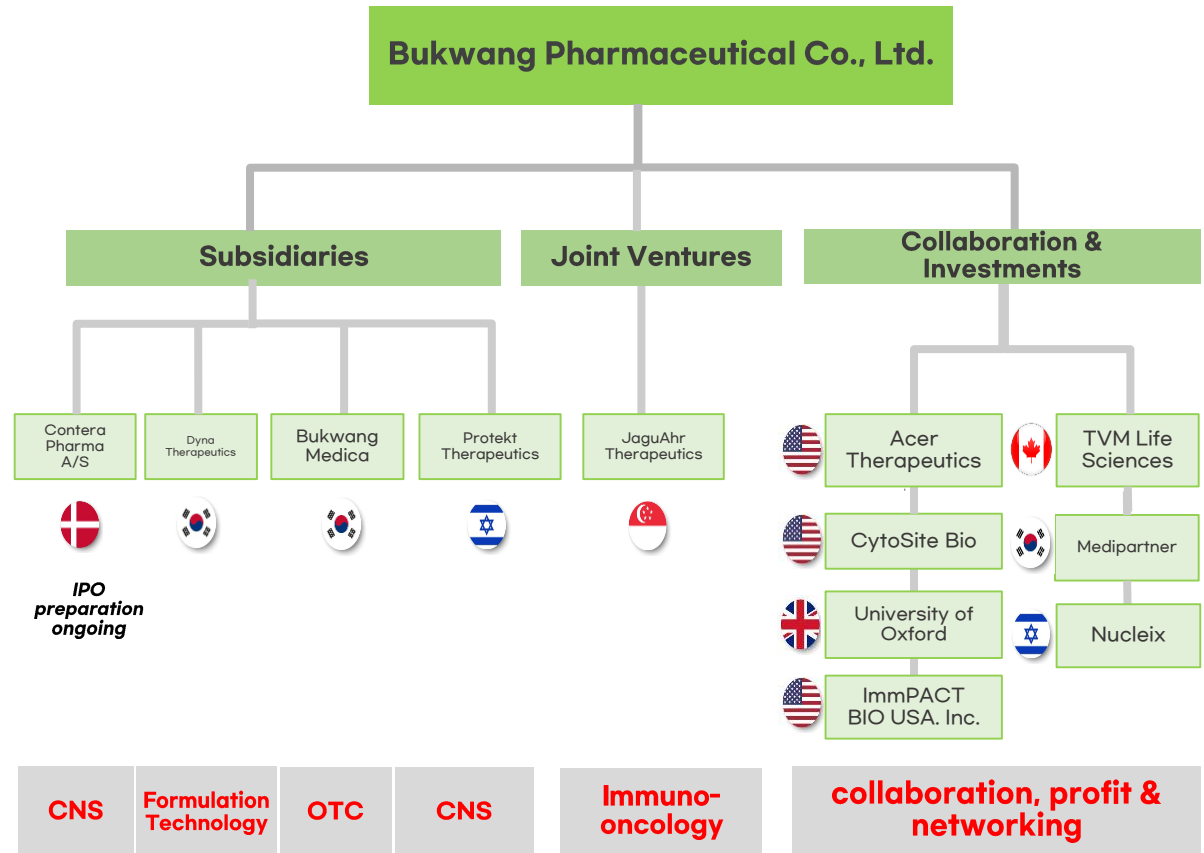
Corporate introduction

Company overview

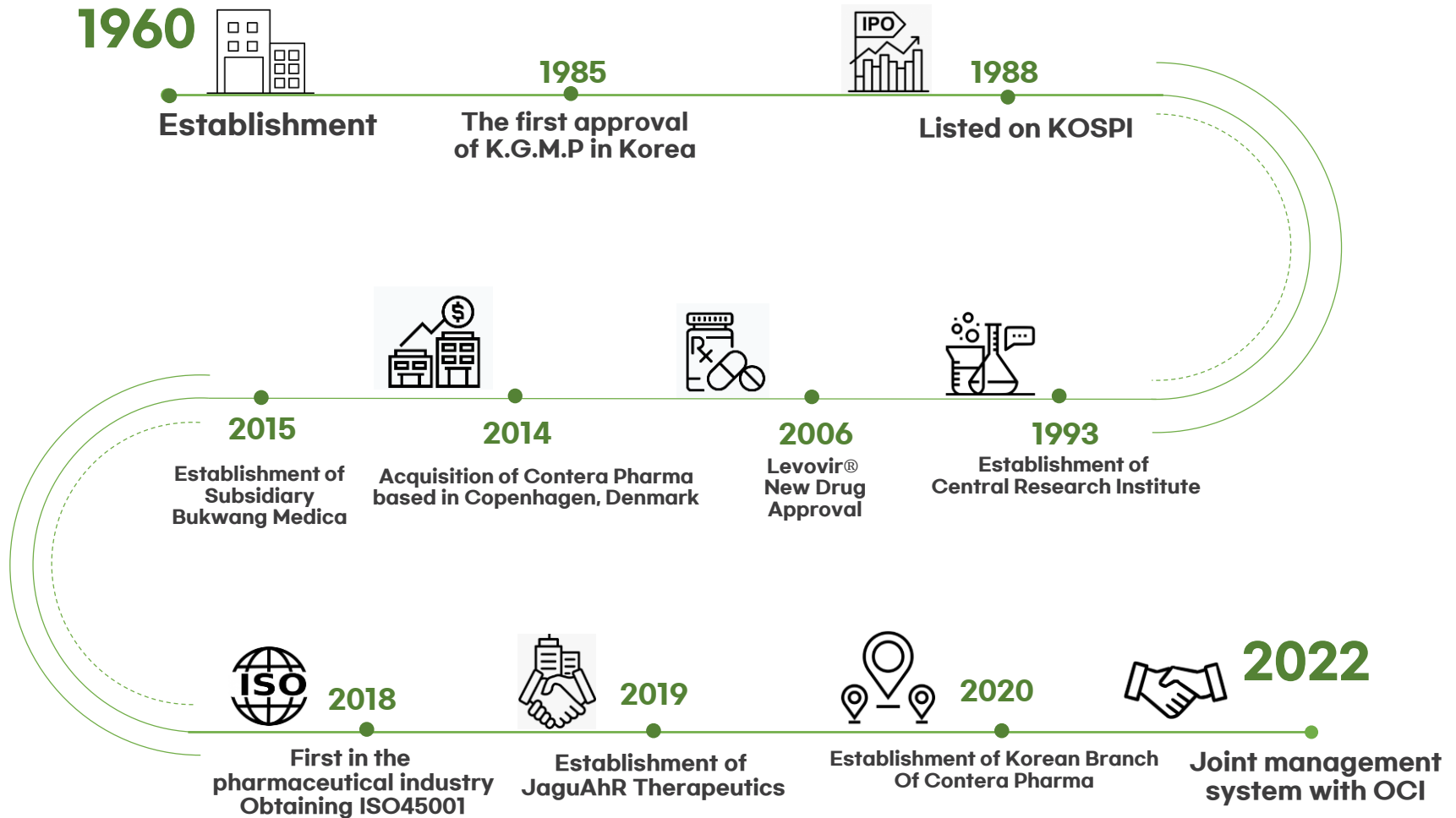


Name	Bukwang Pharmaceutical Co., Ltd.
Location	7, Sangdo-ro, Dongjak-gu, Seoul
CEO	Hee-won Yu, Woo-hyun Lee
Date of establishment	October 17th, 1960
Business	Manufacturing and sales of pharmaceuticals and non-pharmaceutical products
shares	71,063,049 shares
Capital	35,531,524,500 won
Personnel status	611
Homepage	www.bukwang.co.kr

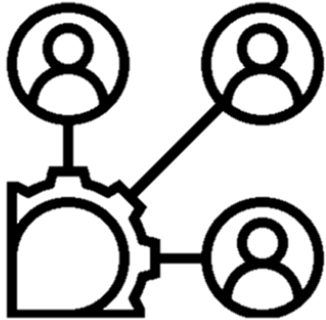
*As of December 2022



Company history



Shareholders' status



71,063,049
Shares

Issued shares

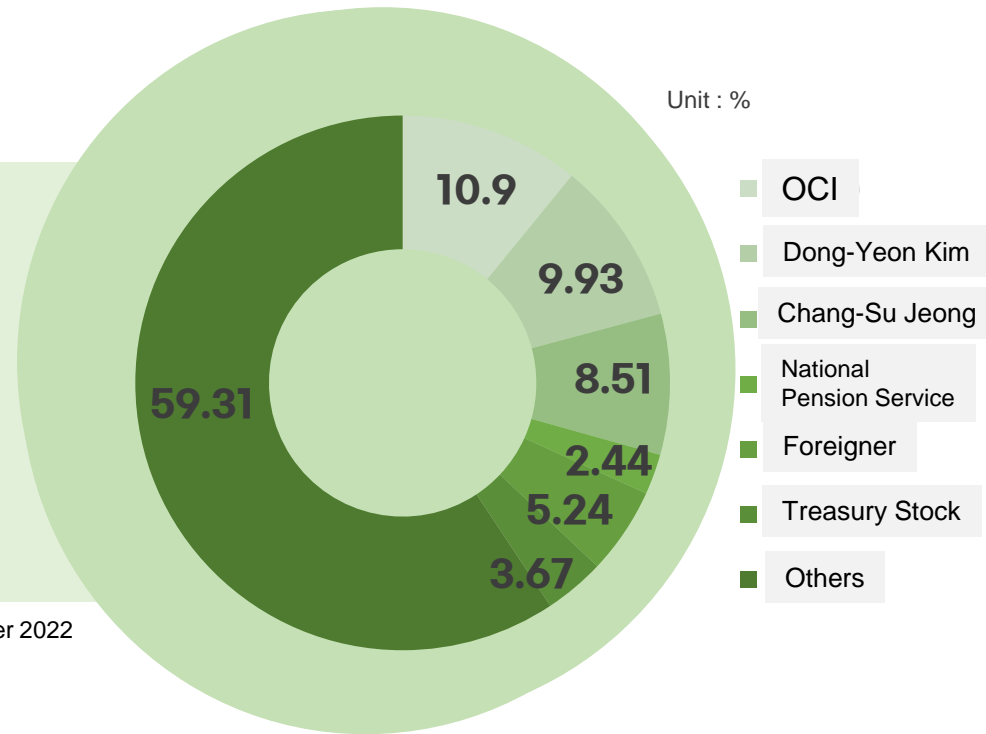
6,289
billion won

Market capitalization

11
billion won

Average daily trading volume

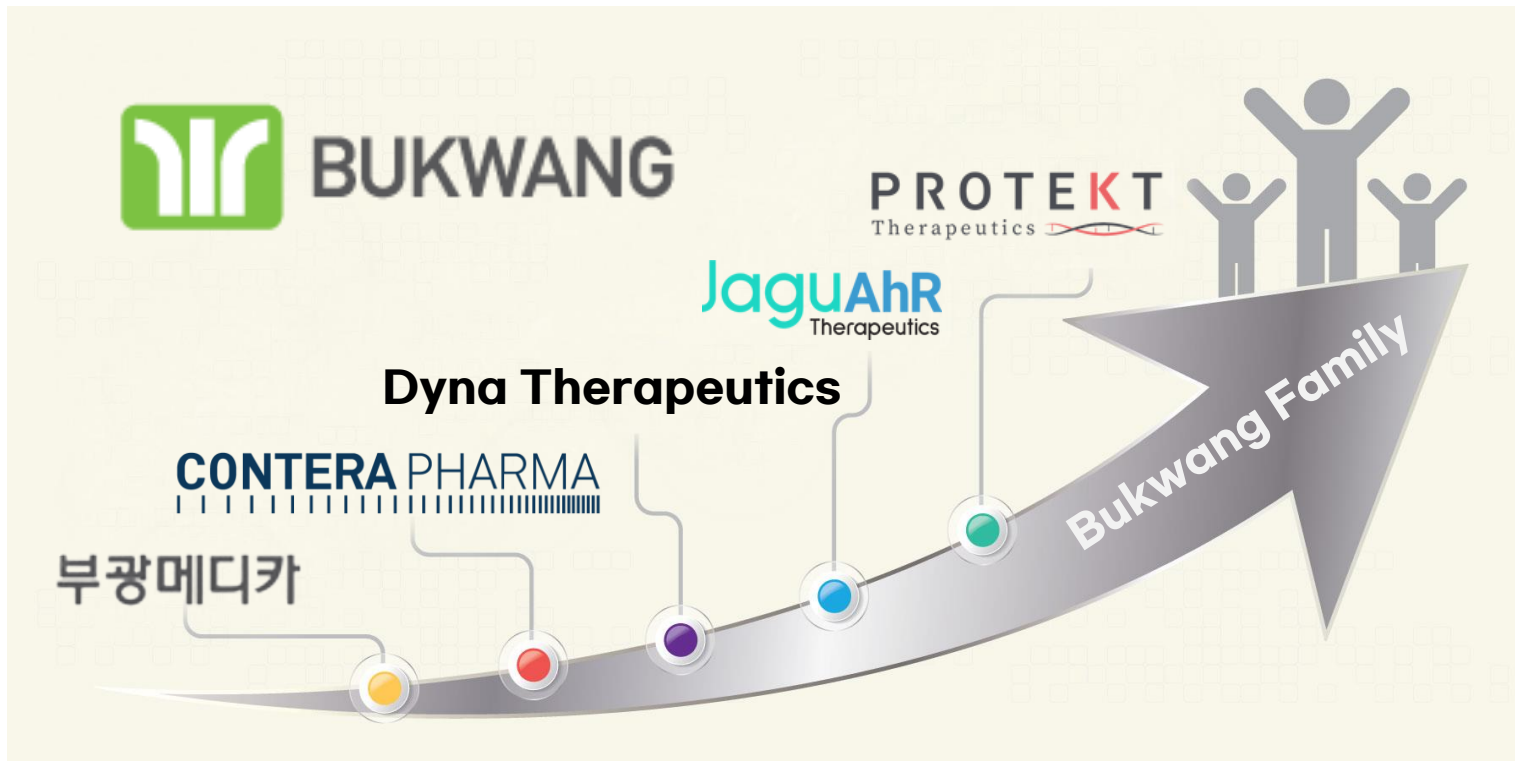
5.24%
Foreign ownership percentage



*As of December 2022

Vision

- Bukwang Pharmaceutical aims to become a global pharmaceutical and biotech company based on the management philosophy of 'contributing to the stability of drug supply and society through the production of excellent pharmaceuticals'
- Bukwang Pharmaceutical is increasing its corporate value through enhancing competitiveness in its main business area of new drug development and expanding synergies.



Growth Strategy & Motives

Global open innovation in R&D

Global R&D Experience

- Development of Hepatitis B Antiviral Agents
- Incrementally modified drug for diabetic neuropathy
- Development of anti-cancer drugs for stomach cancer and diabetes treatments

A variety of pipelines & Business models

- CNS : dyskinesia in Parkinson's disease, Parkinson's disease, Alzheimer's disease, etc.
- Anti-cancer drugs: Immune-oncology, prostate cancer, etc.

Investment Portfolio

- Various investment portfolio including Subsidiaries, Joint Ventures, Research Collaborations, Equity Investments, Indirect Investments, etc.

R&D
Investment
Focus

**CNS
Oncology**

Diverse and distinctive company portfolio

**Bukwang
Medica**

Growth of consumer health business

**Contera
Pharma**

Positive outcome from ongoing clinical study for JM-010
Novel therapy from RNA platform

Dyna

Successful clinical development of SOL-804 and L/O

JaguAhr

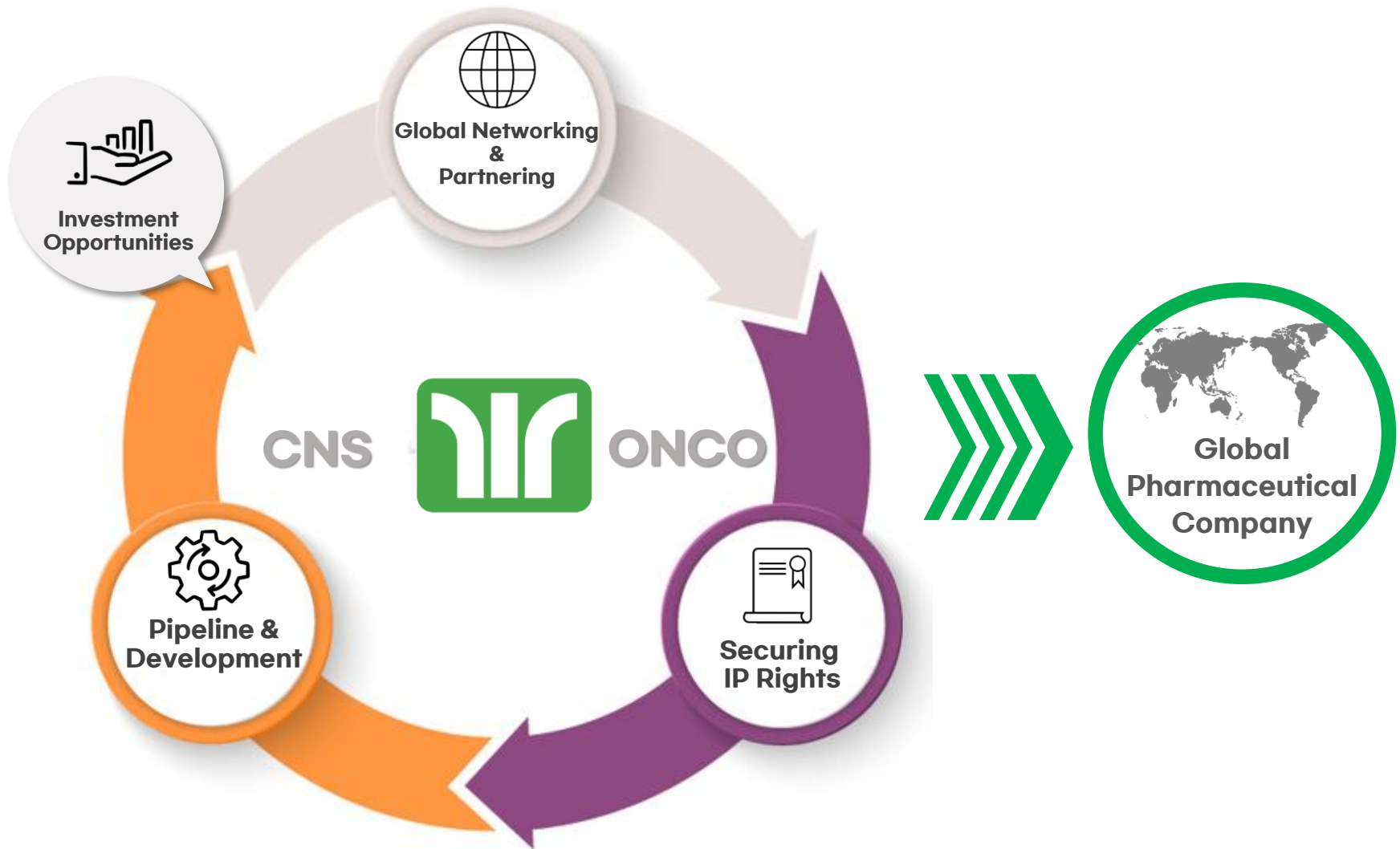
L/O or acquisition of the company after CD nomination

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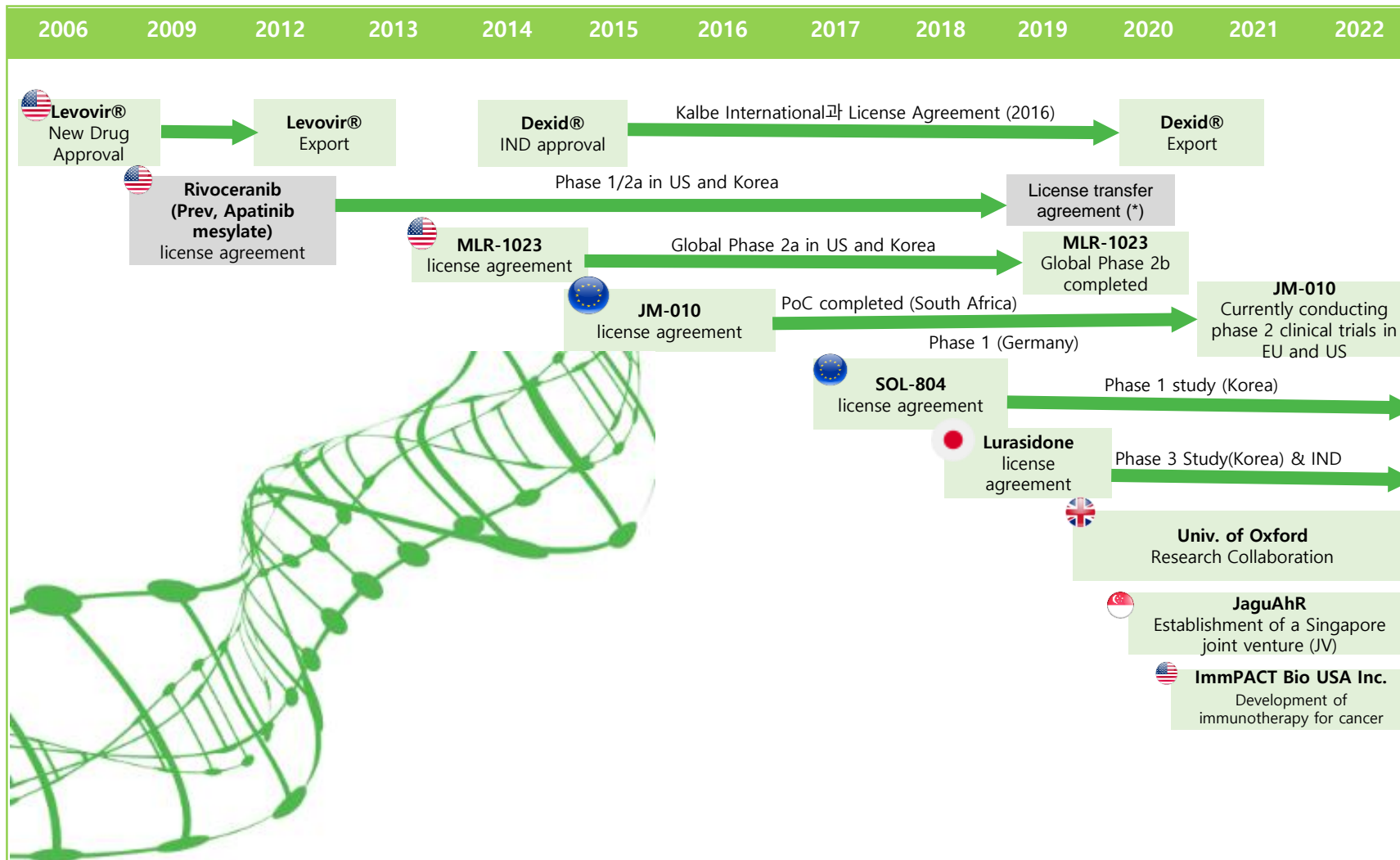
L/O or acquisition of the company after CD nomination

R&D Activities

R&D Strategy: Global Open Innovation

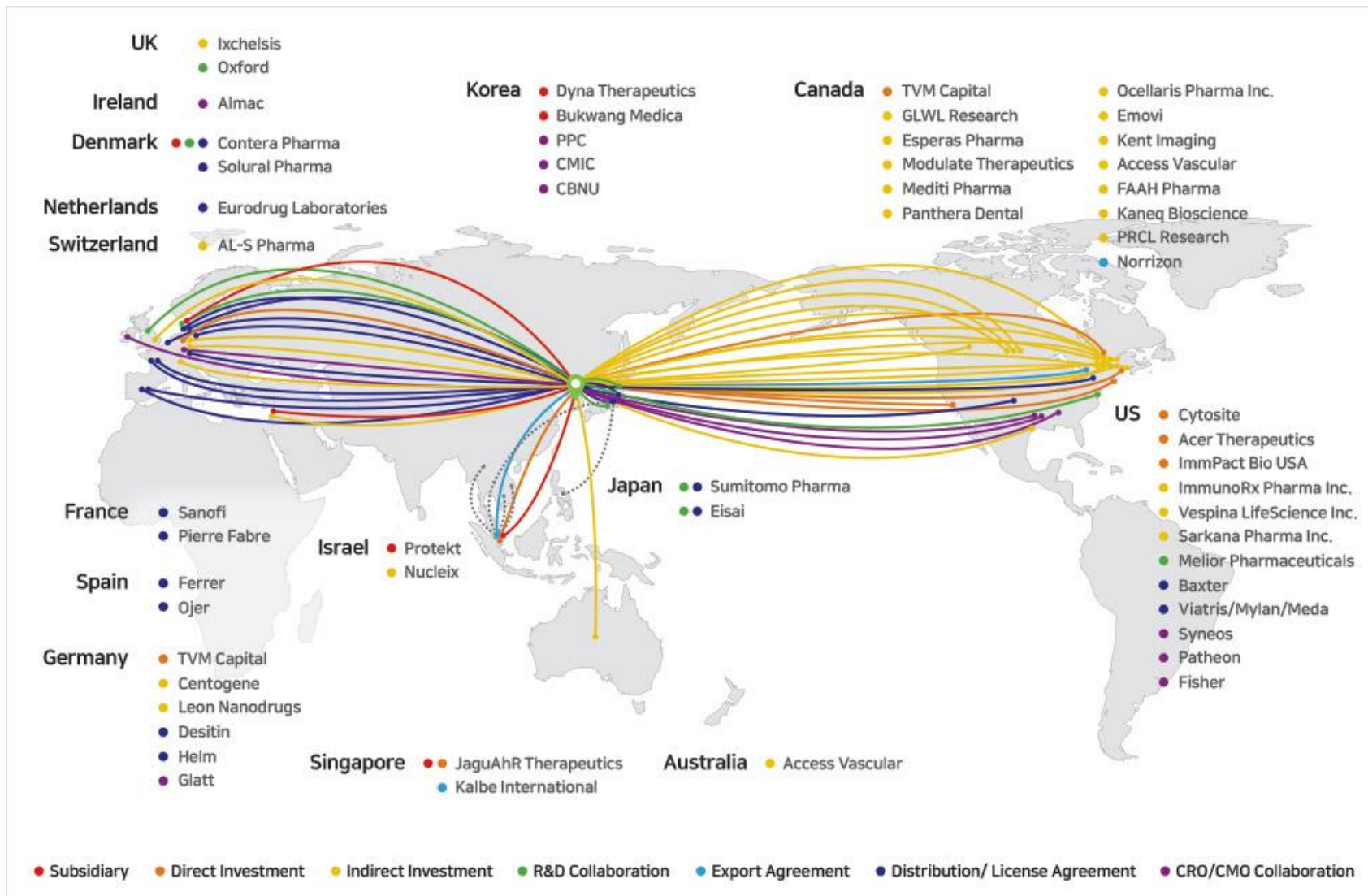


R&D activities



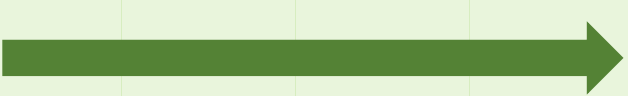




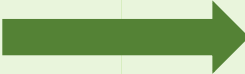




● Aug 2018, Bukwang entered into a license transfer agreement of Rivoceranib for 40 billion KRW with HLB Life Science Co., Ltd

Global Network



Main R&D Pipeline

Pipeline	Type	Indication	Development process					
			Lead	Preclinical	Ph1	Ph2	Ph3	NDA
Lurasidone	CNS	Schizophrenia/bipolar depression						 
JM-010 (Contera)	CNS	Dyskinesia in Parkinson's Disease					 	
SOL-804 (Dyna)	Innovative formulation	Prostate Cancer						
AhR inhibitor (JaguAhr)	Immuno-Oncology	Solid Cancer						
PKR Inhibitor (Protekt)	CNS	Alzheimer's disease						
PD program	CNS	Parkinson's Disease						

Lurasidone : Treatment for Schizophrenia/bipolar depression

Indication

- Treatment of Schizophrenia/bipolar depression developed by Sumitomo Pharma
- Schizophrenia & Bipolar I Disorder (Bipolar depression)
- Lurasidone acts as an antagonist of the dopamine D₂, the serotonin 5-HT₂, and 5-HT₇ receptor

Market Size

- Launched in April 2015 in the North American market, sales of \$2 billion USD in 2021
- Over 45 countries release (US, Canada, EU, UK, Switzerland, Russia, Japan, China, Singapore, Thailand, Hong Kong, Taiwan, Australia, United Arab Emirates(UAE), Kuwait, Saudi Arabia and Brazil)

Contract

- License agreement with Sumitomo Pharma (Apr, 2017)
- Bukwang has monopolized copyright of Korean market

Progress Situation

- Approved of phase 3 clinical study in Korea (Aug, 2017)
- Phase 3 clinical study in Korea in progress since 2018
- Phase 3 clinical patient visit completed (June, 2022)
- **Positive top-line results: success in Phase 3 study and securing statistical significance of primary and secondary evaluation variables (July, 2022)**
- **NDA has been submitted (Oct, 2022)**

SOL-804 : Prostate Cancer treatments

Development Background

- IMD(Incrementally Modified Drug) of Zytiga which is Blockbuster of Prostate Cancer Treatments
- New formulation of currently available Abiraterone Acetate(Zytiga) applying Lymphatic Targeting Technology™ to eliminate the food effect and to reduce dosing level

Market Size

- 3.5 B USD(18' Zytiga Peak sales based)

Development Partner

- Dyna Therapeutics which is Bukwang's formulation-focused subsidiary (98.84% shareholding)
- June 2016, exclusive licensing agreement to develop, market, and commercialize SOL-804 worldwide with Solural Pharma (DK)

Development Progress

- Jun 2016, Development rights Licensing
- Obtained the composition patent in July 2020 (Europe, Japan, Eurasia, Mexico, Australia)
- USA patent: Dec, 2021
- **March 2022, Preliminary Phase 1 completed**
- **Scheduled to conduct clinical trials for regulatory approval in the first quarter of 2023**

JM-010 : Treatment for Dyskinesia in PD

Indication

- Dyskinesia in Parkinson's Disease

Development Partner

- Contera Pharma A/S (Denmark)
- Subsidiary of Bukwang since Nov 2014 and remaining as an independent entity in Europe
Sales Authority of Development Production : Bukwang (Worldwide except Europe), Contera Pharma(Europe)

Progress

- Phase 2a (PoC) study completed in South Africa (Nov 2015)
- Phase 1 completed in Germany (2016)
- Orphan drug designation in Korea has been secured (Jan 2017)
- Phase 2 global study is ongoing
- Adding Korean clinical institutions to European clinical trials
 - EU study* : Patient Dosing
 - U.S. study : Patient Dosing

*EU study : Germany, France, Spain, Italy, Republic of Korea

JM-010 : Treatment for Dyskinesia in PD - Market Size

Incidence rate

Number of Patients in PD	5 years after taking Standard treatment(Levodopa)	10 years after taking Standard treatment(Levodopa)
approximately 10 million	approximately 50%	approximately 90%

(Ref. PD Foundation)

- Over 2 million patients with Dyskinesia in U.S. and EU
- Dyskinesia is the second unmet needs for patients in Parkinson Disease following a fundamental treatment

Market Size

U.S. only	5EU
\$2 billion	\$1.3 billion

(Ref. Van Leeuwenhoeck Research, Dec 2019)



High Unmet Needs for the treatment of Dyskinesia in PD

- The only treatment for Dyskinesia in PD is Amantadine, however it has difficulty in spreading market due to the side effects

Contera Pharma A/S

Overview

- Founded by former Novo Nordisk, Novartis researchers
(Novo Seeds, SEED Capital invested)
- Research activities focused on the development of treatment related to dyskinesia : JM-010 (dyskinesia in PD treatment) and others
- Appointed CEO and Executive Director from the top global CNS professional company
- Having a proven track record of accelerating novel and cutting-edge small-molecule and RNA-based therapeutics to the clinic

Progress Situation

- 2010 - Contera Pharma established
- 2014 - BK taken over by 100% share ratio
- 2015 - clinical PoC completed
- 2016 - phase 1 study completed
- 2019 - series A 3 billion won
- 2020 - series B 30.5 billion won
- 2022 - Gaining exclusive rights of CP-012**
 - Establishment of new research discovery NOVA technology platform (Discovery of RNA based therapies and AI-driven prediction of activity)

Share Ratio

- Bukwang holds 71.23% shares (As of December, 2022)

Contera Pharma Management



CEO: Thomas Sager, MSc, PhD

- Served as Vice President at Lundbeck A/S, a pharmaceutical company specializing in CNS treatments
- Served as Director of Neurological Disease R&D Research, Business Development, Licensing and Scientific Assessment at Lundbeck A/S
- More than 24 years of drug discovery experience acquired in the biotech and pharma industry
- Involved in multiple licensing, M&A opportunities and deals (Such as Foliglurax : Parkinson's disease treatment on phase 2 of Prexton therapeutics, VYEPTI® (eptinezumab-jjmr) : Antihemicranin of Alder Biopharmaceuticals)



CBO: Anders Brandt Elvang, MSc, PhD

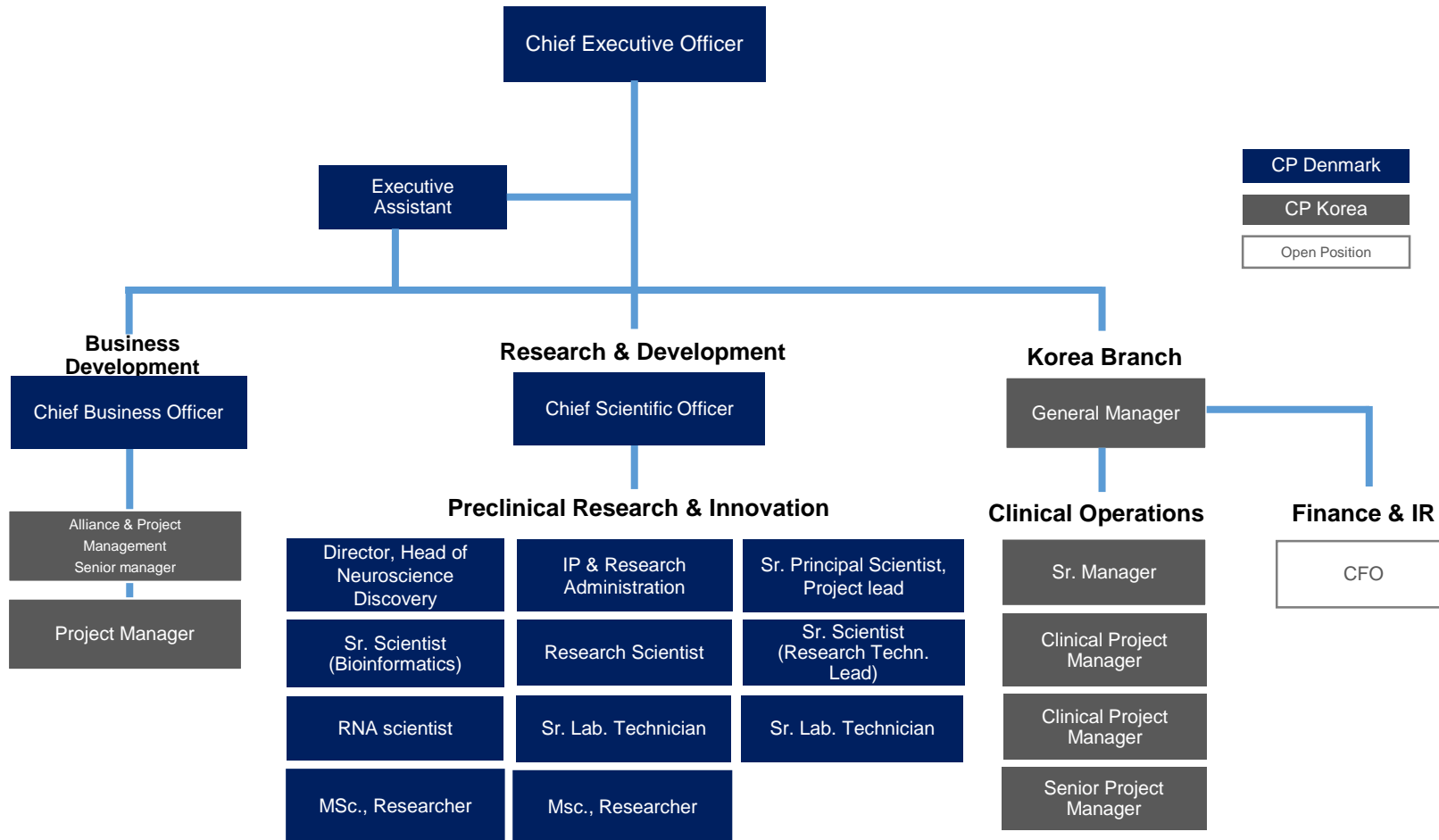
- Served as head of neurological medicine at Lundbeck A/S
- In charge of business development valuation for neurological diseases and senior director of business development and strategy at Lundbeck A/S
- In charge of Asia and Europe sales part of Azilect, a Parkinson's disease treatment (*the largest global sales of \$500m)
- In charge of marketing strategy establishment and licensing (South Korea, China, Philippines)








CSO: Kenneth Vielsted Christensen, MSc, PhD

- In charge of developing new drugs for neurological diseases at Servier, a French global pharmaceutical company
- Worked as a Principal Scientist and Project Leader in the Department for Neurodegeneration focusing on developing disease-modifying treatments for patients suffering from neurological disorders such as Parkinson's disease and Alzheimer's disease for 10 years
- Experienced in pipeline expansion through external collaboration opportunities

Contera Pharma Organization



Contera Pharma Pipeline

PIPELINE						Discovery	Preclinical	IND enabling	Phase I	Phase II	Phase III
 CP²G-DRUG	Project	Partner	Mechanism	Indication							
	JM-010		5-HT1A 5HT1B/D agonism	Dyskinesia in Parkinson's disease	▶						
 CP²G-NOVA	CP-012		DCC substrate DCC inhibition	Morning akinesia in Parkinson's disease	▶						
	CP-101	In-house	RNA silencing (ASO)	Hereditary leukodystrophy	▶						
	CP-102	In-house	RNA silencing (ASO)	Hereditary leukodystrophy	▶						
	CP-105	In-house	RNA silencing (ASO)	Hereditary leukodystrophy	▶						
	CP-301		RNA splicing (SMOL)	Hereditary peripheral neuropathy	▶						
CP-NI		Glial biology modulation	Movement disorders	▶							



University of Copenhagen

Introduction

- JaguAhr Therapeutics is joint venture that Bukwang established together with Singapore based oncology focused biotech ASLAN Pharmaceuticals
- JaguAhr focuses on developing new immune oncology therapeutics for global markets targeting the AhR pathway
- JAGUAHR Therapeutics is currently in the discovery phase of its small-molecule AhR antagonist program with a view to delivering clinical candidate drugs





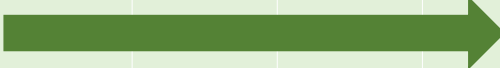
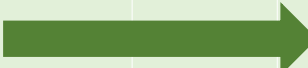



Progress Situation

2019 JaguAhR Therapeutics establishment
2022 Lead optimization in progress

Shareholding Ratio

- Bukwang 65%, ASLAN 35%
- Board of directors : 2 people in Bukwang (one of them is chairman), 2 people in ASLAN

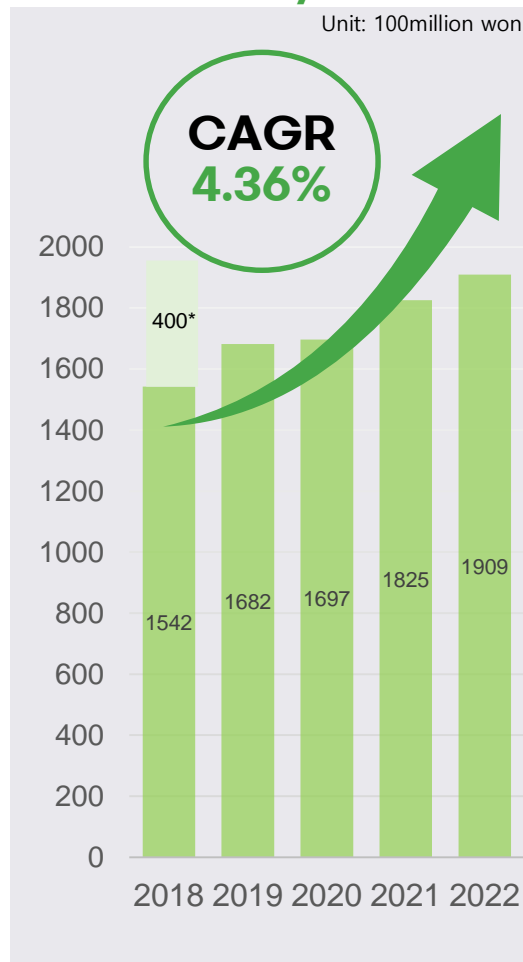
Investment Portfolio

Company	Area	Pipeline	Discovery	Nonclinical	Phase 1	Phase 2	Phase 3	NDA	FDA	
Acer Therapeutics	Serious rare & life-threatening diseases	OLPRUVA™								Approval
		EDSIVO™								
		ACER-801								
		ACER-2820								
ImmPACT Bio	Immuno oncology (CAR-T)	Heme Bispecific								Phase 1/2 planned to be conducted in the first quarter of 2023
		iCAR Targeting								
		TGF-β CAR bispecific								
Cytosite Bio	Imaging for oncology	68Ga Tracer								
		18F Tracer								
TVM Capital	Various	Multiple Portfolio companies								

Performance Briefing

Revenue Growth & Driving factors

Compound Annual Growth Rate Over 5 years



Drivers

- Growth in the prescription :
 - YoY +7.9%
 - Growth in respiratory products
 - Opportunities in the antiviral drug market : Taprid, Adefovir
- Thorough CP management
 - Business organization adapted to regulatory environment
- Co-promotion started
 - Sanofi Aprovel product line
- Ozanex Cream and Hardcal C Plus Tablets released to the market

Strategy

- Expansion of original drug releases
 - Release of new drug, Lurasidone, for schizophrenia treatment
 - Release IMD, SOL-804
- Exploration of niche market products
- Expansion of co-promotion

ETC

- Sales growth of Tacenol and cold medicine amidst the with-COVID19 situation
- Continuous double-digit growth rate
- Increased sales through collaboration with Geo-Young



- Cultivation of Tacenol brand
 - Online advertisement
 - Expansion of Tacenol product line
- Strategy of releasing new products and expanding business partners

Household goods

- Establishment of OTC, Consumer health division: Expanding distribution channels
- Continual release of new products in the health functional food category

- Reinforcement of Sirinmed brand
 - Online advertisement
 - Enhancement of displays at large supermarket stores
- Cultivation of health functional food brands
- Acceleration of channel expansion

*Out of the total revenue in 2018, 40 billion KRW was from the sale of the Rivoceranib sales rights

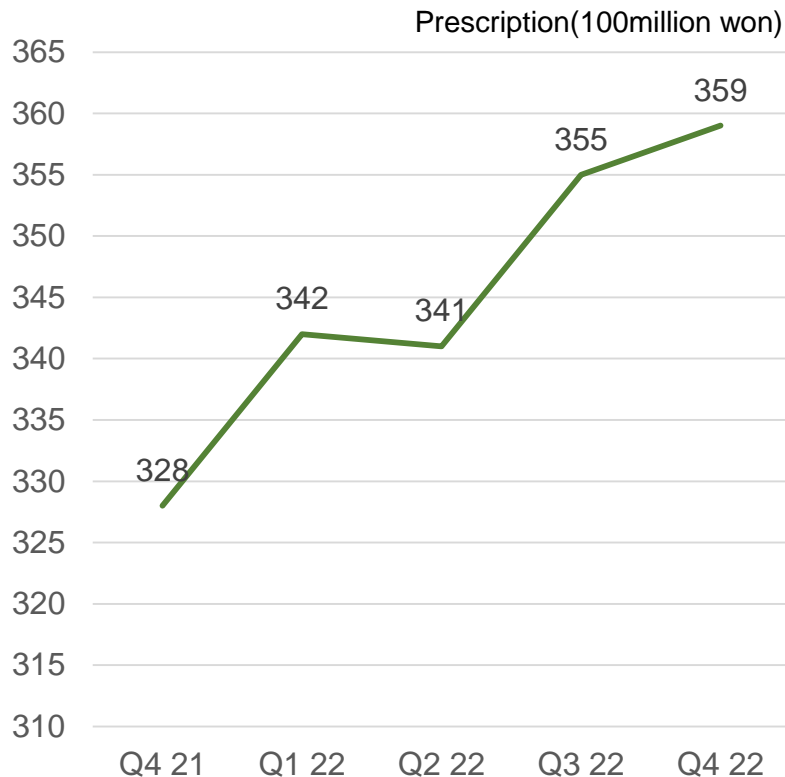
Profit and Loss of fourth Quarter in 2022

Separate	(Unit: 100million won)	2022	YoY	2021	2020
	Sales revenue		1,903	4.8%	1,816
% COGS ratio		58.7%		59.0%	59.2%
R&D Expense		120	-19.5%	149	139
% R&D ratio		6.3%		8.2%	8.4%
Operating income		123	-6.8%	132	85
% Margin		6.5%		7.3%	5.1%
EBITDA		192	-5.4%	203	150
% EBITDA		10.1%		11.2%	9.0%
Net Income		20	-16.7%	24	-55
% Margin		1.1%		1.3%	-3.3%
Consolidated	(Unit: 100million won)	2022	YoY	2021	2020
	Sales revenue		1,909	4.6%	1,825
% COGS ratio		58.4%		58.5%	57.7%
R&D Expense		243	8.0%	225	180
% R&D ratio		12.7%		12.3%	10.6%
Operating income		-2	-103.6%	56	40
% Margin		-0.1%		3.1%	2.4%
EBITDA		69	-47.3%	131	108
% EBITDA		3.6%		7.2%	6.4%
Net Income		-42	-50.0%	-28	-101
% Margin		-2.2%		-1.5%	-6.0%

- Contera pharma's R&D expenses account for the largest portion of difference between operating profit and net profit in separate and consolidated financial statements

Ethical Drug(ETC) Prescription Results

Quarterly Trend



- Prescription data based on UBIST (*Except hospital prescription)

Highlights

Q4' 22 Highlights

- Continued growth in sales performance of respiratory drugs including COVID-19 related Antitussives and Expectorants and Tacenol
- Smooth market launch of Hardcal-C Plus tablets and Ozanex cream, which were scheduled to be released

Q1' 23 Business Outlook

- Expected to contribute to prescription and sales growth through the expansion of production capacity and an increase in the insurance drug price of Tacenol from 51 won to 88 won (+72.5%) starting from December 2022
- Expected increase in prescription of Orfil Syrup for pediatric epilepsy patients due to the release of an improved version of the product in March

Summary of Consolidated Financial Position

Unit (100million won)	December 31st, 2022	September 30th, 2022	changes
Current Assets	2,187	2,247	-60
Cash & Cash equivalents 1)	855	748	107
Short-term financial Instruments 1)	0	250	-250
Account Receivables 2)	880	780	100
Inventories	386	410	-24
Others	66	59	7
Non-Current Assets	1,822	1,731	91
Fellow subsidiary & Investments in Associates	153	142	11
Investments 3)	198	237	-39
Tangible Assets	1,219	1,227	-8
Intangible Assets	70	72	-2
Others 4)	182	53	129
Total Assets	4,009	3,978	31
Total Liabilities	1,291	1,277	14
Accounts Payables & Others 5)	253	165	88
Short-term borrowings 6)	0	100	-100
Contract Liability	171	165	6
Others	867	847	20
Total Equity	2,718	2,701	17
Leverage ratio	47%	47%	

1) Cash & Cash equivalents

- Repayment of short-term loans and terminating fixed term deposits

2) Account Receivables

- Increase in account receivables due to sales growth in the 4th quarter

3) Decrease in Investments

- Incorporating fair value financial asset valuation

4) Others in Non-current Assets

- Increase in net defined benefit asset

5) Accounts Payables & Others

- Increase in raw material purchases in the 4th quarter

6) Short-term borrowings

- Repayment of short-term loans

Thank you!

MAKING
BETTER
LIFE FOR
SUSTAINABLE
TOMORROW

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