



*Making Tomorrow Better*

# Contents

## COMPANY OVERVIEW

- 04 CEO Message
- 06 Milestones
- 08 Mission & Vision
- 09 Strengthening Competitiveness through Synergy
- 10 2022 at a Glance
- 12 Research & Development
- 14 R&D Pipeline
- 16 Manufacturing Facilities
- 17 R&D Facilities
- 18 Global Network
- 20 Social Responsibility

## BUSINESS OVERVIEW

- 24 Businesses & Products
- 26 Ethical Drugs
- 30 Over-the-Counter Drugs
- 34 Personal Care Products

## FINANCIAL STATEMENTS

- 36 Consolidated Statements of Financial Position
- 37 Separate Statements of Comprehensive Income
- Consolidated Statements of Comprehensive Income



*Making Tomorrow Better*

At Bukwang Pharmaceutical, we are dedicated to the continuous development and production of world-class pharmaceuticals that bring better health to life.

Welcome to Bukwang Pharmaceutical.

As a well-established R&D-focused pharmaceutical company, we are now actively leveraging our position on the leading edge of open innovation to develop innovative drugs and expand our pipeline as we set our sights on becoming a global pharmaceutical innovator.

01

## COMPANY OVERVIEW

CEO Message

Milestones

Mission & Vision

Strengthening Competitiveness through Synergy

2022 at a Glance

Research & Development

R&D Pipeline

Manufacturing Facilities

R&D Facilities

Global Network

Social Responsibility

## CEO Message



Bukwang Pharmaceutical  
CEO **Hee-Won Yoo**

## One of Korea's most trusted and respected pharmaceutical companies, Bukwang is now charting a new course toward innovation-driven growth.

Dear valued stakeholders,

It gives me great pleasure to share with you the first annual report published by Bukwang Pharmaceutical.

Looking back on 2022, the pharmaceutical and biotech industries continued to face headwinds due to the ongoing global economic downturn. In this challenging business environment, we redoubled our efforts to achieve continued growth and stable profitability in pursuit of greater shareholder value. These efforts enabled us to record consolidated revenue of KRW 190.9 billion for the year, a 4.6% year-on-year increase.

Driven by open innovation, our new drug development pipeline continued to make solid progress during the year. Key projects now underway include our JM-010 Parkinson's disease dyskinesia treatment candidate under development with Copenhagen-based subsidiary Contera Pharma, our SOL-804 prostate cancer treatment under development by Seoul-based subsidiary Dyna Therapeutics, and our atypical antipsychotic lurasidone for the treatment of schizophrenia and bipolar depression licensed from Osaka-based Sumitomo Pharma.

Another key development for the year was our strategic alliance with Korean chemical and renewable energy firm OCI Company Ltd. We expect OCI's equity investment and participation in management as our largest shareholder to provide a solid foundation from which to pursue new opportunities for synergy and growth as well as enhance our ability to make strategic investments in the coming years. This partnership also testifies to our proven track record in open

innovation as evidenced by the success of previous investments and ongoing new drug licensing and clinical testing efforts. Looking ahead, we aim to expand the scope and scale of open innovation as we step up R&D focused on investment-intensive fields such as treatments for cancer and central nervous system disorders, both significant areas of interest in the global pharmaceutical industry.

As a pharmaceutical company, we are in a unique position to contribute to the greater good. Early on in the COVID-19 pandemic, we ramped up production of our Tacenol fever and pain relief medication. This helped ensure the Korean public had ready access to this important basic treatment with the added benefit of positively impacting our revenue. We also continue to create greater value for society by stepping up investment and efforts to ensure our operations are safe and environmentally sustainable and help meet the needs of our local communities.

Looking ahead to 2023 and beyond, we see limitless possibilities. With the pandemic now behind us, we have a clear opportunity for breakthrough growth. As we focus on cultivating the capabilities that will help us successfully complete the new drug development projects we currently have underway, we will also continue to actively tap our global network as we strive to expand our new drug pipeline.

Thank you again for your interest in Bukwang Pharmaceutical. Your continued support and encouragement are greatly appreciated as we take the next step toward achieving our vision of becoming a global pharmaceutical company.

# Milestones

At Bukwang, we are opening the door to a healthier tomorrow by proactively responding to changing times and pursuing sustainable growth and development.

1960~1999

- Oct 1960 Founded as Bukwang Trading Company Ltd.
- Mar 1962 Renamed Bukwang Pharmaceutical Industry Co., Ltd.
- Apr 1985 Became Korea's first drug maker to win Korea Good Manufacturing Practice (KGMP) certification
- Aug 1988 Listed on the Korea Stock Exchange
- Dec 1989 Commissioned 2nd plant in Ansan
- Dec 1993 Established central R&D center
- Jan 1997 Won government recognition for excellence in labor relations

2000~2009

- May 2000 Renamed Bukwang Pharmaceutical Co., Ltd.
- Nov 2004 Out-licensed hepatitis B treatment patents and technology to Japanese firm Eisai
- Nov 2006 Made Forbes Asia's 200 Best Under A Billion list; Won Korean FDA approval for Levovir (clevudine) for the treatment of type B hepatitis
- Feb 2007 Received the Grand Prize at the 8th Korea New Drug Awards for Levovir
- Mar 2008 Received the Stone Tower Order of Industrial Service Merit at the 42nd Korea Taxpayer's Day Awards
- Aug 2008 Received cGMP approval for new Ansan plant

2010~2019

- May 2014 Established IT subsidiary Bukwang C&C Co., Ltd.
- Jul 2014 Received top audit award from Korea's Financial Supervisory Service
- Nov 2014 Acquired Contera Pharma A/S, a specialist in central nervous system disease treatment based in Copenhagen
- Jun 2015 Established subsidiary Bukwang Medica to manage OTC drug development and marketing
- Jun 2016 Subsidiary Dyna Therapeutics Co., Ltd. acquired an exclusive worldwide license for the SOL-804 prostate cancer drug candidate from Danish firm Solural Pharma
- Nov 2016 Acquired OHSAS 18001 and ISO 14001 certifications
- Jun 2018 Became Korea's first drug maker to acquire ISO 45001 occupational health and safety management system certification
- Jul 2019 Launched partnership with the University of Dundee in the UK to develop a new treatment for Parkinson's disease
- Sep 2019 Established JaguAhR Therapeutics with Aslan Pharmaceuticals to develop new immuno-oncology therapeutics

2020~

- Apr 2020 Subsidiary Contera Pharma established office in Seoul, Korea
- Jun 2020 Exported midazolam anesthetic sedative for emergency use in COVID-19 treatment to European markets
- Nov 2021 Received Ministry of Food and Drug Safety Minister's Award at Korea's 35th Pharm Day Awards
- Feb 2022 Announced strategic alliance with OCI Company Ltd.
- Aug 2022 Subsidiary Dyna Therapeutics expanded SOL-804 composition patent coverage to 32 countries
- Oct 2022 Applied for Korean Ministry of Food and Drug Safety approval for lurasidone, a new drug for schizophrenia and bipolar depression
- Nov 2022 Received President's Award at Korea's 36th Pharm Day Awards

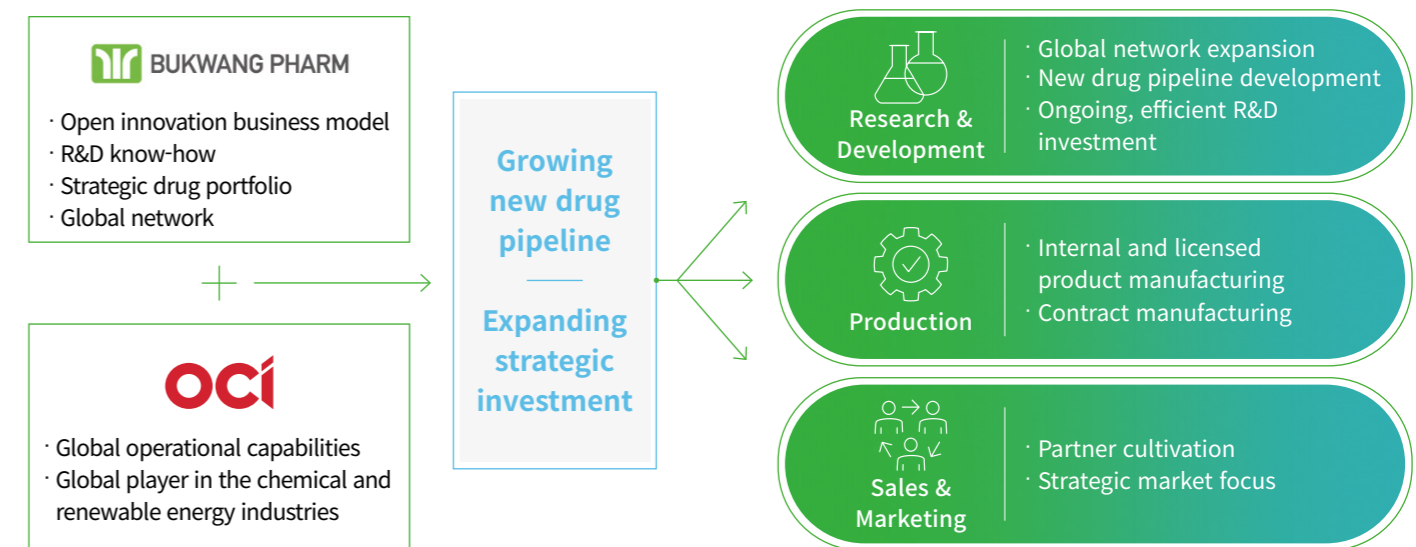
## Mission & Vision

At Bukwang, our mission is to contribute to society by providing a stable supply of high-quality pharmaceutical products. This mission underpins our vision of becoming a global pharmaceutical company. Toward this end, we strive to strengthen our competitiveness in key business fields through new drug development as we build corporate value through synergistic expansion.



## Strengthening Competitiveness through Synergy

In 2022, we welcomed Korean chemical and renewable energy company OCI Company Ltd. as our largest shareholder, marking the beginning of a strategic alliance that will accelerate our emergence as a global pharmaceutical company. We believe that our well-established open innovation business model and core capabilities as an R&D-focused pharmaceutical firm combined with OCI's global business capabilities will create numerous opportunities for synergy while enhancing our ability to make strategic investments in the years ahead.



## Growth Strategy

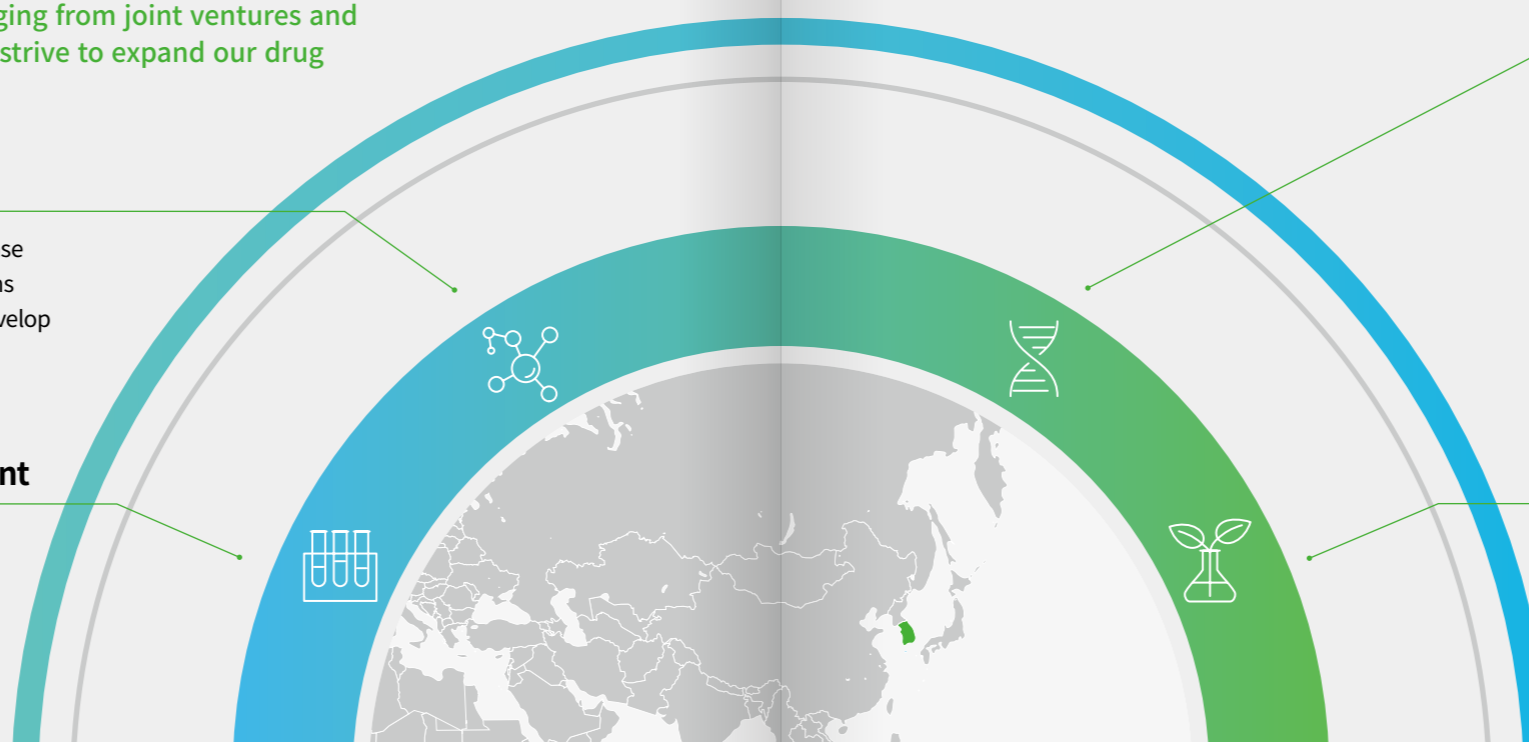
We pursue a variety of R&D open innovation strategies ranging from joint ventures and research collaborations to mergers and acquisitions as we strive to expand our drug pipeline and develop new business models.

### Open innovation

We have a full-range of development programs spanning pre-clinical to phase 3 studies. This and our partnerships with more than 30 pharmaceutical firms and biotech ventures worldwide play a key role in our ongoing efforts to develop innovative new drug candidates and grow our pipeline.

### New drug development and virtuous-cycle investment

Our open innovation strategy drives our drug development pipeline. Profits generated by our pipeline are reinvested, creating a virtuous cycle that is enabling us to build a sustainable drug development model.



### Strategic investment

We pursue strategic investments worldwide in companies with promising drug technologies and candidates. Recent notable investments include the establishment of JaguAhR Therapeutics, a Singapore-based joint venture with Aslan Pharmaceuticals focused on developing immuno-oncology therapeutics.

We have also made an equity investment in Israel-based ProteKt Therapeutics, a developer of therapies for neurodegenerative conditions such as Alzheimer's disease.

### Business model diversification

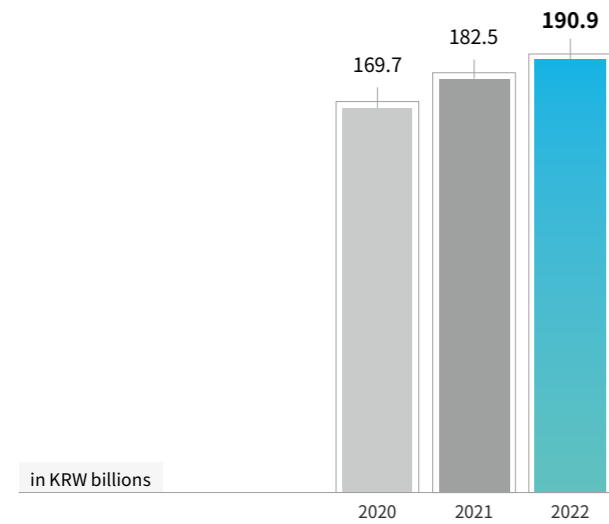
In addition to ethical drugs, we continue to expand our portfolio of consumer health products encompassing over-the-counter drugs, nutraceuticals, and personal care products.

# 2022 at a Glance

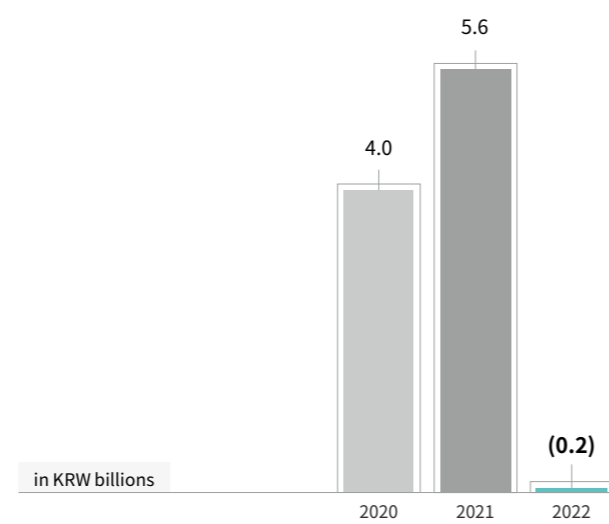
## Financial Highlights

All figures are presented on a consolidated basis

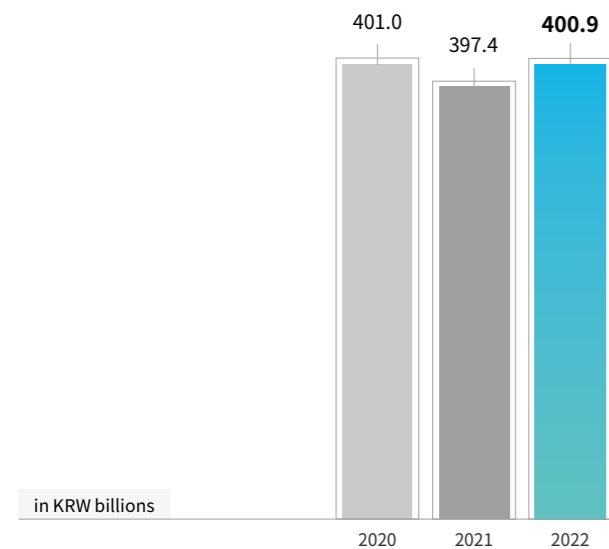
### Revenue



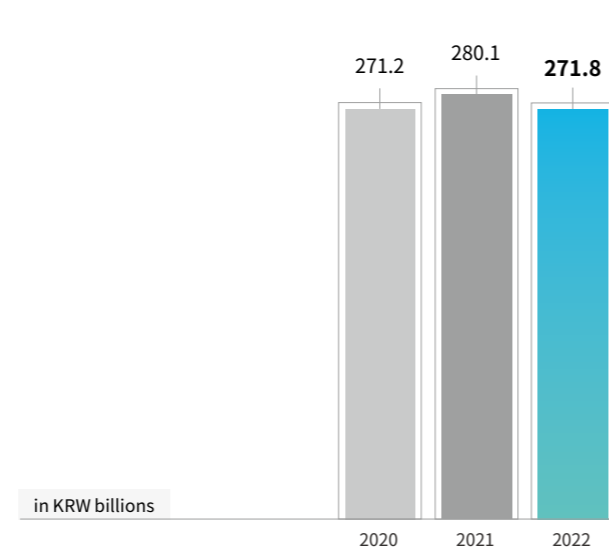
### Operating Income



### Total Assets



### Shareholders' Equity



## News Highlights

Feb

### Strategic alliance formed with OCI

OCI Company begins participation in major Bukwang Pharmaceutical management decisions involving new product development, investment, and financing following its acquisition of a controlling equity stake. We expect the new alliance with OCI to enable us to accelerate both new drug development and strategic investment as we continue to expand our product pipeline.

Jul

### Lurasidone efficacy confirmed in phase 3 trial

Our atypical antipsychotic lurasidone, a treatment for schizophrenia and bipolar depression, successfully achieved its primary efficacy endpoint in a phase 3 clinical trial in Korea covering 210 patients from 35 hospitals. We licensed lurasidone from Japanese firm Sumitomo Pharma in 2017.

Aug

### SOL-804 patent registration expands to 32 countries

Subsidiary Dyna Therapeutics expanded the composition patent coverage of its SOL-804 prostate cancer treatment to five additional countries, bringing the total to 32 countries to date, including the United States, Japan, Europe (20 countries), and Australia. SOL-804 improves absorption and eliminates food effects, facilitating increased patient convenience and compliance over currently available abiraterone acetate prostate cancer treatments.

Nov

### Recognition at Korea's 36th Pharm Day Awards

For the second year in a row, Bukwang was recognized on this nationally designated day to honor exceptional contributions to public health by the Korean pharmaceutical industry. CEO Hee-Won Yoo received the President's Award on behalf of the company in recognition of our efforts to prioritize production of our Tacenol (acetaminophen) fever and pain relief medication to help ensure a stable supply during the recent COVID-19 pandemic.



## Research & Development

As one of Korea's first pharmaceutical companies to earn GMP certification, we continue to be an industry innovator with capabilities encompassing drug research and development, manufacturing, marketing, and commercialization.

Over the years, we have been an industry trailblazer in R&D-focused investment. In 2006, our Levovir (clevidine) hepatitis B treatment became Korea's 11th approved novel drug and the world's fourth treatment for the condition. We have since out-licensed Levovir for several Asian markets. We also successfully developed Dexid for treating diabetic polyneuropathy in 2013.

In the years since, our ongoing new drug development efforts have followed an open innovation strategy to build a pipeline focused on treatments for central nervous system diseases and cancers. In 2014, we acquired Copenhagen-based Contera Pharma, securing an innovative treatment for Parkinson's disease patients suffering from dyskinesia. In 2015, we invested in Acer Therapeutics, a developer of therapies for serious rare diseases that listed on the US Nasdaq stock exchange in 2017.

In 2016, subsidiary Dyna Therapeutics exclusively licensed worldwide rights to SOL-804, a treatment candidate for prostate cancer, from Danish firm Solural Pharma.

In 2019, we partnered with Aslan Pharmaceuticals to establish JaguAhR Therapeutics, a Singapore-based joint-venture focused on immuno-oncology therapeutics. We also made an equity investment in Israeli firm ProteKt Therapeutics, a developer of therapies for neurodegenerative disorders. Most recently, in 2020, we invested in ImmPACT Bio, a developer of next-generation chimeric antigen receptor (CAR) T-cell therapies for treating cancer.

Overall, we have built a vibrant collaborative research network encompassing both direct and indirect connections with 30-plus academic institutions, research centers, drug makers, and biotech ventures worldwide. This enables us to evaluate more than 300 potential drug candidates from around the globe every year as we continue to pursue R&D-focused investment to accelerate the development of new world-class pharmaceuticals.

### R&D Strategy



**Building a Global Network**  
**Network with innovators**  
 We partner to identify innovative drug candidates and accelerate development.

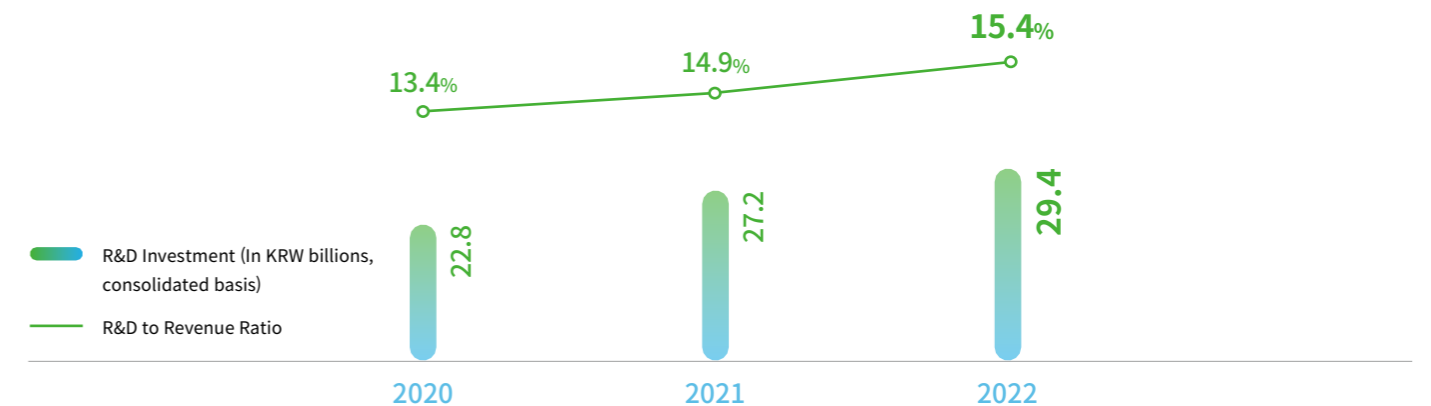
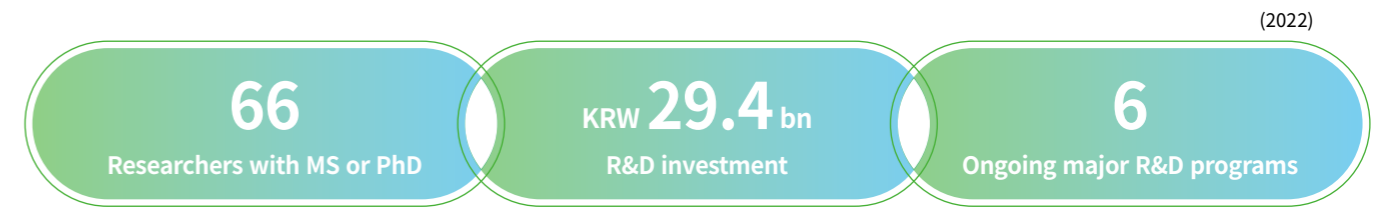
**Invest actively and globally**  
 We invest in promising biotech ventures around the globe through strategic partnerships with venture capital firms such as TVM Capital Life Science, Medivate Partners, and Quad Investment Management.

**Building a New Drug Pipeline**  
**JM-010**  
 We have exclusively licensed this treatment for dyskinesia in Parkinson's disease from our Danish subsidiary Contera Pharma.

**SOL-804**  
 We have exclusively licensed this treatment for prostate cancer from Danish firm Solural Pharma.

**Lurasidone**  
 We have exclusively licensed this treatment for schizophrenia and bipolar disorder from Japanese firm Sumitomo Pharma for sale in Korea.

**Ongoing R&D Investment**  
**R&D investment**  
 In 2022, we invested 15.4% of our revenue in R&D, continuing the steady upward trend of the past few years.





# R&D Pipeline

Our new drug pipeline focuses on the development of treatments for central nervous system disorders and cancers. In the coming years, we will continue to bolster our in-house R&D capabilities to complement our active open innovation strategy as we accelerate the development of a diverse range of new drugs.



## JM-010

**An innovative treatment for dyskinesia in Parkinson's disease**  
 Currently in development with Copenhagen-based subsidiary Contera Pharma, JM-010 is designed to treat Parkinson's disease patients suffering from dyskinesia. An estimated 80% to 90% of patients on anti-parkinsonian drugs develop dyskinesia, a condition for which limited treatment options currently exist. If JM-010 proves to be effective in clinical trials, we expect the treatment to become an essential tool in managing a motor condition that is increasingly prevalent in aging populations.

JM-010 is a fixed dose combination of medications already proved to be safe with a novel drug release profile. It is currently undergoing phase 2 studies in Germany, France, Spain, Italy, Korea, and the United States.

Contera Pharma has been a subsidiary since 2014. Our strategic acquisition of this central nervous system disorder-focused biotech firm was followed by a license agreement that gives us exclusive rights to develop and market JM-010 outside of Europe.

## SOL-804

**An innovative treatment for prostate cancer**  
 Currently in development by Seoul-based subsidiary Dyna Therapeutics, SOL-804 is a promising prostate cancer treatment candidate. Unlike existing treatments, this incrementally modified drug utilizes a proprietary drug delivery system that eliminates the need to adhere to food-related dosing requirements. To date, the composition patent for SOL-804 has been registered in 32 countries, including all major markets in North America, Europe, and Asia.

SOL-804 has demonstrated pharmacokinetic properties at low doses comparable to the control drug Zytiga in a phase 1 clinical study.

We established Dyna Therapeutics in 2016 to take the lead in our new drug development efforts. Dyna licensed exclusive worldwide development and commercial rights to SOL-804 from a Copenhagen-based Solural Pharma ApS in 2016.

# Manufacturing Facilities

## Ansan Plant

The mission of our Ansan plant is to ensure just-in-time delivery of high-quality products manufactured as efficiently as possible. After earning the Korean pharmaceutical industry's first KGMP certification in April 1985, the original Ansan plant was expanded in 1989 and remodeled in 1992. In 2008, we commissioned a new state-of-the-art plant designed to meet global GMP standards, putting our manufacturing competitiveness on par with the best in the industry.

**Location** | 47, Neungan-ro, Danwon-gu, Ansan, Gyeonggi Province, South Korea

**Site facts** | Plant site size: 20,592 sqm  
Manufacturing floorspace: 28,723 sqm

### Major products

Pharmaceuticals: Five categories including oral solids, ointments, oral liquids, topical liquids, and injections

Other products: Toothpaste



### Advanced production system

We produce pharmaceuticals in closed systems to prevent the intake of impurities and cross contamination during manufacturing. We have adopted intermediate bulk container processing for solid dosage forms and automated aseptic processing for injectable dosage forms. We also operate a building management system to ensure that the optimal temperature, humidity, and air pressure differential are maintained in all production areas.

### World-class quality system

Our commitment to manufacturing top-quality pharmaceuticals is backed by a quality assurance system that strictly adheres to PIC/S GMP standards and guidance. This system includes a quality management system that uses state-of-the-art equipment to monitor quality in real time from raw material to finished product, an audit system to monitor supplier quality, ongoing validation of all manufacturing processes, and a quality risk management system to reduce quality deviations during manufacturing and testing. Our Korea Good Supply Practice (KGSP)-certified distribution system also ensures that consumers consistently receive the highest-quality products.

### Occupational health and environmental systems

Our manufacturing operations meet the ISO 45001 standard for occupational health and the ISO 14001 standard for environmental management to ensure a healthy, safe, accident-free work environment for our employees and exceptional value for our customers with eco-friendly products manufactured using processes optimized to have the smallest-possible environmental footprint. Toward this end, we continually work to identify and eliminate potential safety and pollution risk factors across our manufacturing operations.

# R&D Facilities

## Central R&D Center

Established in December 1993, the Central R&D Center plays a leading role in the development of new pharmaceuticals as well as the improvement of existing ones. The center's organizational structure includes independent labs dedicated to research on formulation and drug delivery systems, compounding, and evaluation. From product concept to patent registration, the center oversees every step of the drug development process, generating ideas for new and improved or modified drugs, determining the optimal dosage form and posology, preparing scientific research materials to support regulatory applications, internalizing relevant external technologies, and managing joint R&D projects.

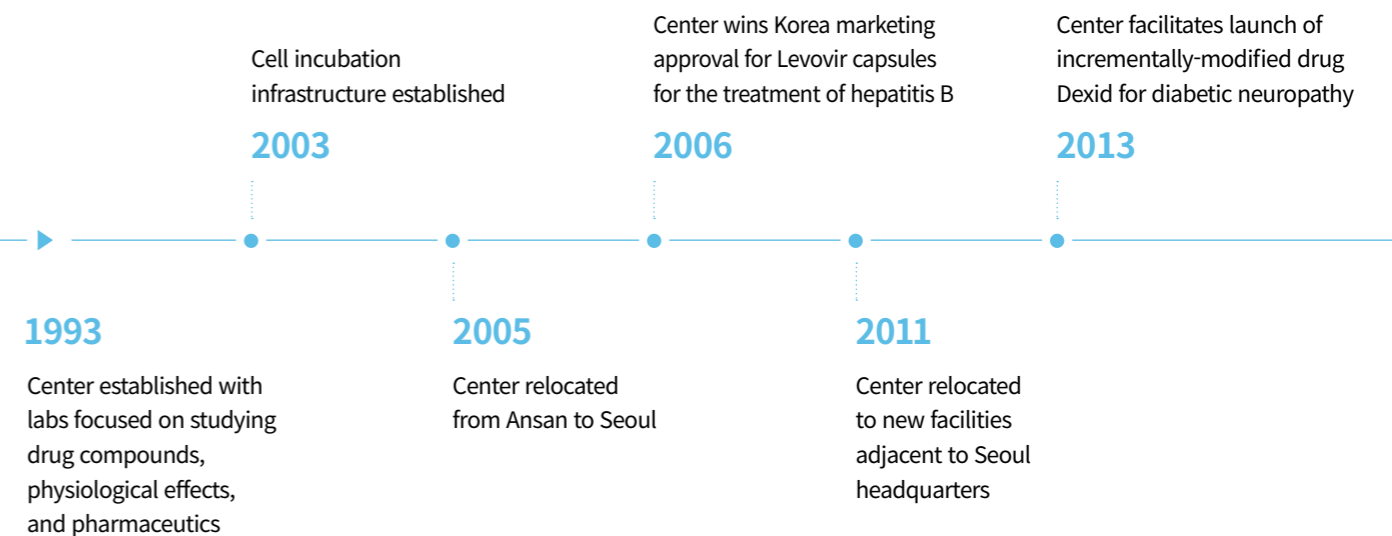
### Major Responsibilities

#### New Drug Development

- Development of NCE, IMD, and generic products
- Optimal formulation design
- Regulatory application preparation
- Technology licensing and R&D collaboration
- Patent registration

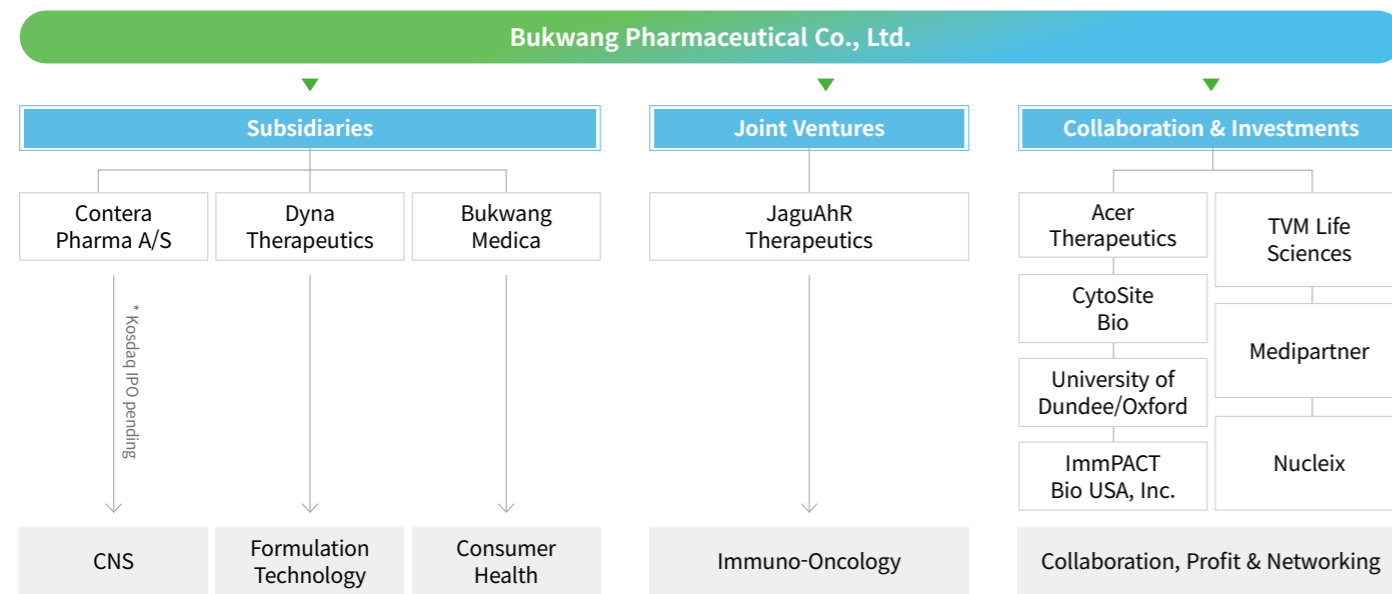
#### Existing Drug Improvement

- Product performance enhancement
- Production issue troubleshooting
- Cost reduction



# Global Network

At Bukwang, our unique network of subsidiaries, joint-venture affiliates, collaborations, and investee partners enables us to pursue a wide range of projects focused on expanding our pipeline, securing development and marketing rights, identifying and developing new drug candidates, and ramping up new businesses.



### Contera Pharma A/S

Founded in 2010 by former researchers of Nordisk and Novartis, Contera Pharma is a Copenhagen-based biotech startup focused on developing treatments for central nervous system disorders. The company's JM-010 treatment for dyskinesia in Parkinson's disease is currently under clinical development. We acquired a 100% equity stake in Contera in November 2014. As of the end of 2022, our stake stood at 71.23%.

### Dyna Therapeutics Co., Ltd.

Founded in 2016, Dyna exclusively licensed worldwide development and marketing rights for the SOL-804 treatment for metastatic prostate cancer from Danish firm Solural Pharma in June 2016.

### Bukwang Medica

Founded in June 2015, this wholly owned subsidiary handles the sales and distribution of our growing nutraceutical product lineup under the Bukwang Lab brand.

### JaguAhR Therapeutics

Founded in September 2019, JaguAhR is a Singapore-based joint venture with Aslan Pharmaceuticals focused on developing novel immuno-oncology therapeutics that target the aryl hydrocarbon receptor (AhR) pathway. We hold a 65% equity stake in the venture.

### Subsidiaries

### Joint Ventures

At Bukwang, we have built a wide range of collaborative relationships with partners around the globe. Spanning new drug candidate development, in- and out-licensing, exports, and sales, these collaborations continue to boost our global competitiveness and drive growth.



## Social Responsibility

At Bukwang, we are committed to making a positive difference in society through a broad range of programs and activities. We aim to be a valued partner by delivering pharmaceuticals that meet the needs of both patients and health professionals, supporting the underserved, and making local communities healthier, happier places to live.



### Connecting manufacturing with the public good

One example of how we respond to the needs of patients and health professionals is by expanding options for our product dosage strengths. For example, our Synthroid thyroid hormone treatment currently has a market share exceeding 70% in Korea. In 2019, we expanded the available dosage strengths from four to eight. Since even small changes in dosage may help patients avoid adverse reactions, this gives doctors and pharmacists finer control over the prescription dosage, improving patient comfort. Another recent example was our successful corporate-wide effort to ramp-up production of our Tacenol fever and pain relief medication during the COVID-19 pandemic in response to acetaminophen shortages in the local market.



### Keeping essential drugs available

Korea's Ministry of Health and Welfare maintains a list of low-cost essential drugs that local pharmaceutical companies are required to maintain production of. Currently, 24 our products have received this designation, the fifth-largest number in the industry. We are honored to play a crucial role in helping ensure the timely availability of these essential medicines to the public.



### Partnering with local communities

Founded in 2015, our Smart Volunteers service organization takes the lead in our community service activities, connecting employees from across our organizations with service opportunities. One of our oldest partnerships has been with World Vision Korea to provide healthy dinners five nights a week for undernourished children and teens in Seoul's Eunpyeong-gu district. We also help bring hope to those in need by helping shut-in seniors stay healthy and comfortable in summer and winter, providing educational support for children and teens from low-income families, hosting special events for the physically disabled, and supporting social service organizations. Our Ansan plant also makes regular in-kind product donations to local community health centers to help positively support the health and well-being of our closest neighbors.




### Improving safety for the visually impaired

In 2014, we became Korea's first drug maker to provide drug safety information in braille on product packaging. As of June 2020, 42 of the 94 bottled medicines on the Korean market with this safety feature were produced by us. We will continue to expand the scope of these and other efforts to make it easier for underserved members of society to access health and medical services.



### Winning recognition for environmental stewardship

In 2019, our Ansan plant was recognized by the city of Ansan for outstanding environmental management in recognition of our ongoing efforts to address potential environmental issues and contributions to local environmental conservation. Our Ansan plant was an early adopter of the ISO 14001 environmental management system and the Korean pharmaceutical industry's first site to acquire ISO 45001 health and safety system certification. Built from the ground up to be the cleanest, greenest manufacturing facility in the industry, the Ansan plant continually strives to minimize the environmental impact of our operations on the local community.



At Bukwang, we continue to expand the scope and scale of our open innovation efforts to ensure that we are globally competitive not just in the field of new drug development but across our core business portfolio of industry-leading ethical drugs, over-the-counter drugs, nutraceuticals, and personal care products.

02

## BUSINESS OVERVIEW

Businesses & Products

Ethical Drugs

Over-the-Counter Drugs

Personal Care Products

# Businesses & Products

At Bukwang, our commitment to R&D and open innovation has enabled us to develop and produce a world-class portfolio of ethical drugs, over-the-counter drugs, and nutraceuticals over the past six decades. Today as we look to the future, we are rededicating ourselves to fulfilling our mission of bringing greater health and happiness to the globe through an ever-expanding portfolio of life-enhancing products and businesses as we keep our promise to make tomorrow better.

2022 Revenue

KRW **190.9** billion

Personal Care Products

KRW **16.2** billion

Over-the-Counter Drugs

KRW **16.9** billion



Ethical Drugs

KRW **157.7** billion

Our ethical drug portfolio currently has more than 100 drugs. More than 80% of our revenue from this category comes from original drugs licensed through partnerships with major international pharmaceutical companies. As we continue to invest in a diverse and unique portfolio, we are confident that these investments will create greater value, accelerating our emergence as a global drug developer driven by open innovation with world-class licensing and clinical research capabilities.



Portion of 2022 Revenue

**82.6%**

**Ethical  
Drugs**

We use quality raw materials to make quality over-the-counter drugs and nutraceuticals. We continue to upgrade our capabilities across the board to ensure we are a reliable supplier of quality products as we enhance our reputation as a trusted pharmaceutical company.



Portion of 2022 Revenue

**8.9%**

**Over-the-  
Counter  
Drugs**

We continue to expand our non-drug product portfolio with functional products to promote tooth and gum health. As part of these efforts, we are in the process of expanding both our online business and distribution channels as well as our product lineup in response to consumer needs to firmly establish the Bukwang brand as a major player in the personal care market.



Portion of 2022 Revenue

**8.5%**

**Personal  
Care  
Products**

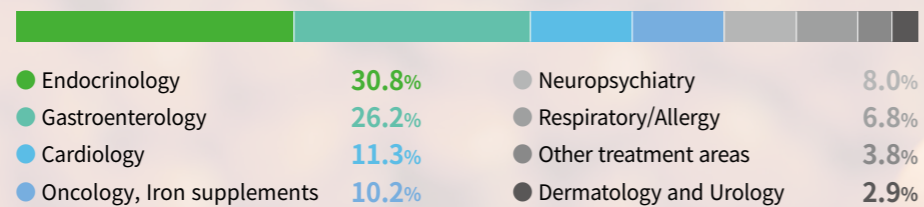
# Ethical Drugs



Our ethical drug lineup includes more than 100 products to treat a wide variety of disorders. More than 80% of our revenue from this business comes from original brand drugs sourced through partnerships with major international makers. Top-selling products include Dexid and Thioctacid for treating diabetic peripheral neuropathy, Legalon for treating toxic liver disease, chronic hepatitis, and liver cirrhosis, and Feroba-You SR for the prevention and treatment of iron-deficiency anemia. Our sales and marketing partnership formed with Sanofi-Aventis Korea in 2020 has also generated steady growth for the Aprovel and CoAprovel family of hypertension treatments.

In 2022, a number of our products experienced strong revenue growth. These included Hexamedine mouthwash, Tacenol for fever and pain relief, Dylastine for allergic rhinitis, and other cough and cold medications. We also continue to expand our portfolio of central nervous system treatments. In early 2023, we received Korea Ministry of Food and Drug Safety approval of Zaledeep for the treatment of insomnia. We continue to make preparations for the Korea launch of Latuda for the treatment of schizophrenia and bipolar depression.

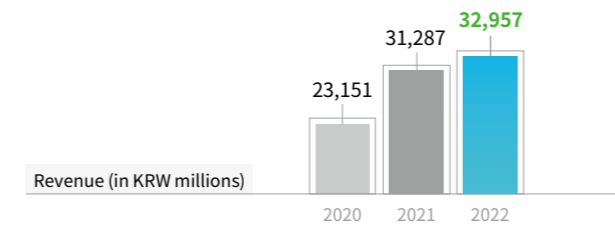
## 2022 ethical drug sales by treatment area



## Dexid | Thioctacid ▶

### Diabetic peripheral neuropathy treatments

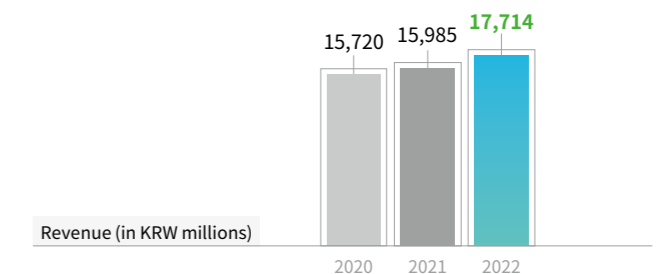
Dexid and Thioctacid are original alpha lipoic acid formulations for diabetic peripheral neuropathy, a condition affecting approximately one-third of all type 2 diabetes patients that has been treated symptomatically to date. Both products can treat symptoms without side effects while helping improve neuronal function. Notably, Dexid is an incrementally modified drug that improves patient compliance by offering the same clinical outcome at a lower dosage strength, enabling it to achieve sales growth exceeding 5% annually.



## Legalon ◀

### Hepatitis treatment

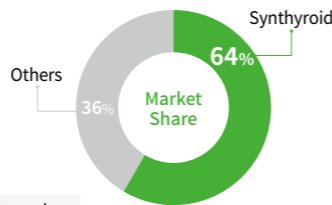
Legalon is a silymarin original formulation used to treat toxic liver disease, chronic hepatitis, and liver cirrhosis. While Korea has seen a decline in patients with viral hepatitis types such as hepatitis B and hepatitis C, the number of patients with non-alcoholic fatty liver disease has risen sharply along with rising rates of diabetes, hypertension, and obesity. Accordingly, we have retargeted Legalon to treat both digestive and endocrinal disorders, boosting sales.



## Synthroid ▶

### Hypothyroidism treatment

Our Synthroid thyroid hormone treatment has been available on the Korean market for more than 50 years. This proven track record of safety and effectiveness has made it Korea's most-prescribed treatment for hypothyroidism, capturing approximately 64% of the market in 2022. In line with Synthroid's inclusion in Korea's Drug Shortage Prevention Program, we supply this essential drug at an affordable insurance reimbursement price of KRW 26 per 0.025 mg dose, making it as accessible as possible to patients with hypothyroidism. Synthroid is available in eight dosage strengths, the most offered by any Korean drugmaker, enabling prescriptions to be precisely tailored to meet the needs of individual patients. In addition to Synthroid, we continue to expand our family of thyroid treatments including Comthyroid, Methimazole, and Antiroid to better meet patient needs.

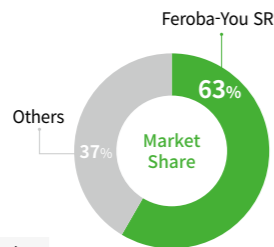


2022 Korean thyroid hormone treatment market

## Feroba-You SR ◀

### Iron-deficiency anemia treatment

Our Feroba-You SR ferrous sulfate oral treatment is recommended in medical textbooks and guidelines as the first-line treatment for iron-deficiency anemia. Its proven effectiveness has earned it inclusion in Korea's National Essential Medicines Program for the treatment of chronic kidney disease patients requiring dialysis and cancer patients experiencing anemia as a side effect of their treatment regimen. We supply Feroba-You SR at an affordable insurance reimbursement price of KRW 93 per tablet to reduce the financial burden for patients of these expensive-to-treat conditions. According to Korea's Health Insurance Review and Assessment Service statistics, Feroba-You SR prescriptions rose at an average annual rate of 7.8% during the five-year period running from 2017 through 2021, reaching a 63% market share in 2022. Unlike similar products on the market only approved for the treatment of iron-deficiency anemia, Feroba-You SR is also approved for the prevention of that condition, further expanding its potential for growth.

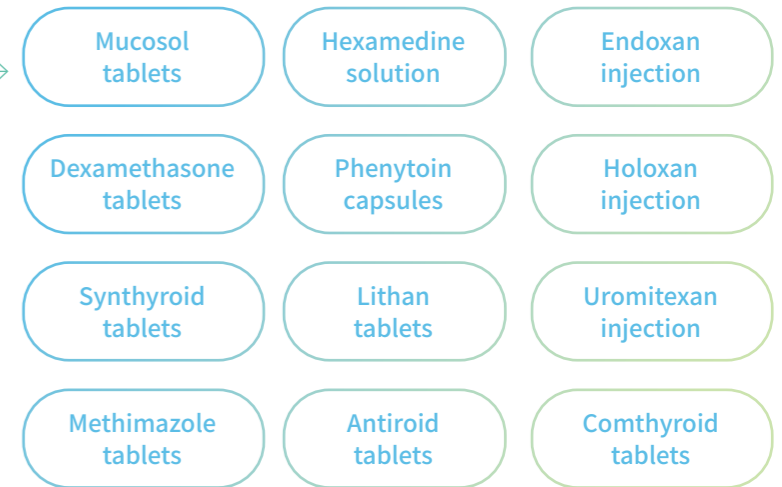


2022 Korean iron-deficiency treatment market

At Bukwang, we prioritize the supply of a number of essential drugs and medicines in Korea in keeping with our mission to contribute to the health and well-being of society.

## Drug Shortage Prevention Program

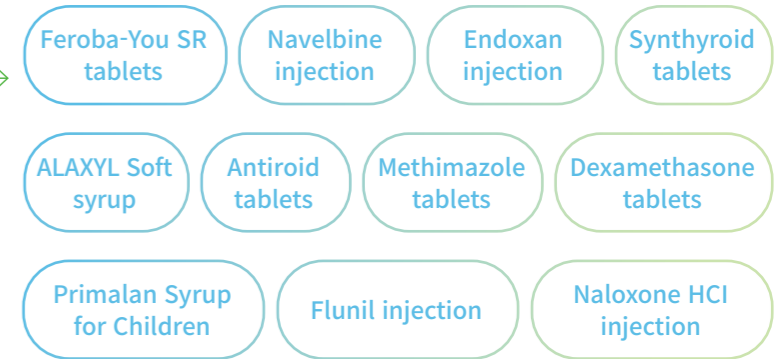
12 Products



Administered by Korea's Ministry of Health and Welfare, the Drug Shortage Prevention Program mandates that local drug makers maintain production of certain low-cost essential drugs to ensure availability. A total of 12 Bukwang products are currently included in the program.

## National Essential Medicines Program

11 Products



Korea's National Essential Medicines Program currently covers 511 drugs designated as essential to delivering an effective first-line response to terror attacks, disasters, infectious disease outbreaks, and general public health needs. A total of 11 Bukwang products are included in the program.



# Over-the-Counter Drugs

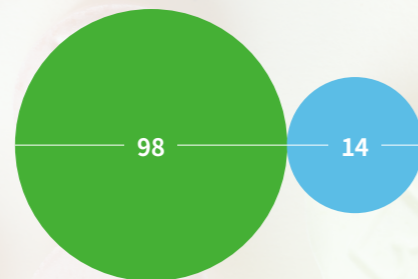


At Bukwang, we are committed to producing quality pharmaceuticals that improve health for all. In every aspect of operations from raw material selection to production and distribution, we never stop striving to make tomorrow better. Over the decades, our ability to respond to changing times for the greater good has made us one of Korea's most-respected drug makers. Our decision to quickly ramp up production of our Tacenol fever and pain relief medication in 2020 at a time when acetaminophen was in scarce supply as the COVID-19 pandemic swept the globe is a case in point. Going forward, we continue to closely monitor Tacenol supply and demand to help ensure that Korean consumers will have essential access when the next pandemic strikes.

### Over-the-counter drug business overview

Products available in 2022  
**98**

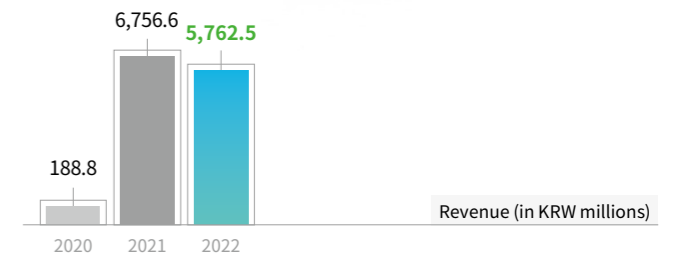
Product launches planned for 2023  
**14**



## Tacenol ▶

### Fever and pain relief medication

This acetaminophen fever and pain relief medication brand is our best-known over-the-counter product. Originally launched in 2002 as an 8-hour extended-release tablet, Tacenol was subsequently released as in a 500 mg tablet in 2015 as well as a 160 mg tablet for children in 2022. Over the past two decades, we have also produced and marketed Tacenol on a contract basis. Positioned as Korea's fever and pain relief medicine of choice in online media campaigns, the Tacenol brand has become synonymous with acetaminophen in our home market. In 2023, we will continue to step up marketing to pharmacists and consumers alike as we strive to expand the Tacenol brand lineup with cold capsules, sore throat relief, and other new products.



## Phazyme ◀

### Gastrointestinal medication

Our Phazyme product line consists of three specialized formulations for gastrointestinal conditions. Phazyme Complex is a general digestive medication containing ursodeoxycholic acid (UDCA) in a two-layer tablet. Phazyme is a digestive enzyme containing simethicone in a two-layer tablet. Phazyme Air Free is a chewable tablet designed for gas relief. We continue to expand our Phazyme brand offerings to strengthen our presence in the gastrointestinal market.

## Coritussal ▶

### Cold medication

Starting out as a children's cough syrup, the Coritussal product line now contains seven cough relief products for both children and adults. Popularized in the mid-1970s thanks to a catchy TV commercial slogan, Coritussal became one of Korea's best-known children's fever and pain relief medications. Since its relaunch in 2014 and a complete brand overhaul in 2019, it has continued to see steady growth. The Coritussal S brand for adults is available in separate formulations to treat common cold, nose cold, and chest cold symptoms with a smaller tablet size to make ingestion more comfortable.



## ALAXYL ▶

### Laxative

Launched in 1984, ALAXYL was Korea's first granular treatment for constipation. In the years since, sales of this safe herbal laxative have continued to steadily rise. The main herbal ingredients in our flagship ALAXYL granules product are plantago seed and senna fruit. These natural ingredients result in fewer side effects, making ALAXYL ideal for treating chronic constipation and restoring normal bowel movement.



## Mega-Vai | Actiby ◀

### High-potency multivitamin supplements

These vitamin B supplements are formulated to treat general physical fatigue from childhood through seniorhood as well as reduced physical strength common during pregnancy and lactation as well as illness and recovery. They also contain vitamins C, D, and E, zinc, gamma oryzanol, inositol, and choline tartaric acid, making them an effective general vitamin supplement. Both products have a higher zinc content than competing supplements to help boost immune response.



## Hexamedine ▶

### Mouthwash

Unlike other oral mouthwash products available in Korean supermarkets and convenience stores, Hexamedine is only available at licensed pharmacies. In addition to its primary function as an antiseptic mouthwash, Hexamedine can be used to treat gingivitis, pharyngitis, aphthous stomatitis, and denture stomatitis. According to IQVIA data, it was Korea's top-selling over-the-counter oral mouthwash in 2022.

## Tavex Gel ▶

### Topical gel

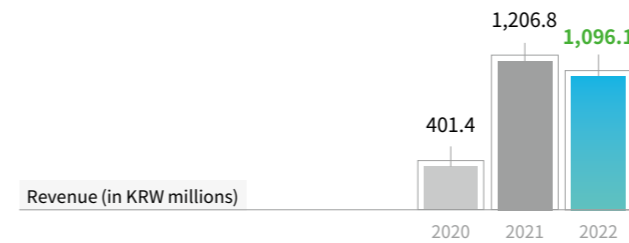
This is the only anti-inflammatory analgesic topical gel sold in Korea to contain aescin and diethylamine salicylate. An original brand treatment manufactured and marketed under license from Madaus of Germany, Tavex Gel has proven its safety and effectiveness for all sex and age groups in major global markets. Notably, its ability to be safely used for even infants sets it apart from other options on the market.



## Tantan Chokchok Collagen ▶

### Collagen supplement

Produced with fish-scale collagen peptides known for their excellent absorption properties, this nutraceutical collagen supplement has proven effective in improving nine indicators of skin health in testing conducted by Korea's Ministry of Food and Drug Safety. A molecular volume of 512 daltons ensures quick skin absorption, while a pomegranate flavor with no hint of fish smell makes it a tasty choice for consumers of all ages.



## ENTAX ▶

### Oral health supplement

Our top-selling oral health supplement, ENTAX is formulated to promote bone and tooth growth and is manufactured in the United States. In addition to ENTAX, our growing oral nutraceutical lineup includes Protax and Neo Insa Forte, giving consumers more options to meet their specific oral health needs.



## BK Eskimo rTG OMEGA-3 ▶

### Omega-3 supplement

This premium nutraceutical supplement is produced with high-purity omega-3 harvested from natural Alaskan seafood resources. BK Eskimo rTG OMEGA-3 is certified by the Global Organization for EPA and DHA omega-3s (GOED), International Fish Oil Standards (IFOS), and the Marine Stewardship Council (MSC) to ensure consumers receive the freshest, safest product available on the market.

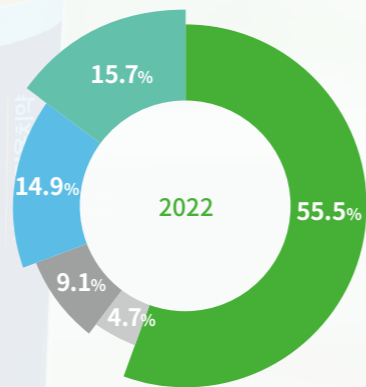
# Personal Care Products



At Bukwang, we produce more than 50 personal care products designed to meet the oral care needs of consumers. Our SirinMED family of toothpastes formulated for sensitive teeth and gums has made us a solid player in the market. Products with revenue exceeding KRW 1 billion currently include our SirinMED F toothpaste for sensitive teeth, SirinMED Gum Care, Bukwangtax toothpaste for sensitive gums, and ANTIPLAQUE toothpaste with excellent cavity-prevention properties. We continue to expand our SirinMED and ANTIPLAQUE brand offerings and distribution channels as we set our sights on leading Korea's functional toothpaste and oral care markets in the years ahead.

## 2022 sales breakdown by product category

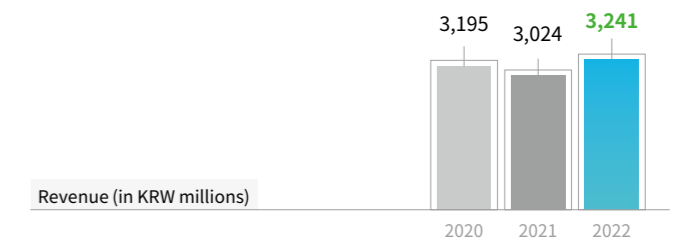
● SirinMED toothpastes	55.5%
● Toothbrushes	15.7%
● Other oral care products	14.9%
● ANTIPLAQUE toothpastes	9.1%
● Other toothpastes	4.7%



# SirinMED F ◀

## Toothpaste for sensitive teeth

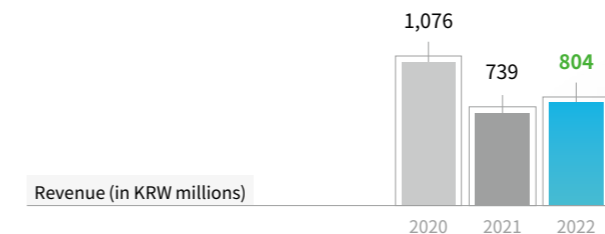
Our flagship functional toothpaste proved its effectiveness in reducing tooth sensitivity based on a clinical study conducted in Korea and published in 1993. After just two weeks of use, 83% of trial participants reported seeing an improvement in comfort, a number that rose to 92.4% after four weeks of use. Korea is rapidly becoming an aging society, with seniors 65 and older projected to account for 20% of the population in 2025. This aging population will have a higher incidence of gum disease, leading to steadily rising demand for functional toothpastes, providing new opportunities for growth as we expand our range of oral care products to meet consumer needs.



# ANTIPLAQUE ▶

## Toothpaste for healthier teeth

True to its name, the ANTIPLAQUE toothpaste family is designed for effective plaque removal to help prevent cavities. Since Korean health insurance was extended to cover dental scaling, the public has become increasingly interested in oral health. In addition to ANTIPLAQUE toothpaste, we have expanded our ANTIPLAQUE toothbrush lineup with soft and super-fine bristles. We are also preparing a new line of toothbrushes and toothpastes specifically tailored to the needs of children as we continue to target new market opportunities.



## Consolidated Statements of Financial Position

(Unit: KRW 100 millions)

	2022	2021	2020
<b>Current Assets</b>	<b>2,187</b>	<b>2,201</b>	<b>2,482</b>
Cash & Cash Equivalents	855	828	793
Account Receivables	880	904	1,037
Inventories	386	393	514
Others	66	76	138
<b>Non-Current Assets</b>	<b>1,822</b>	<b>1,773</b>	<b>1,528</b>
Investments in Subsidiaries and Affiliates	153	153	136
Investments	198	217	206
Tangible Assets	1,219	1,229	1,046
Intangible Assets	70	70	70
Others	182	104	70
<b>Total Assets</b>	<b>4,009</b>	<b>3,974</b>	<b>4,010</b>
<b>Total Liabilities</b>	<b>1,291</b>	<b>1,174</b>	<b>1,298</b>
Accounts Payables & Others	272	182	209
Contract Liability	171	163	135
Others	848	829	954
<b>Total Equity</b>	<b>2,718</b>	<b>2,801</b>	<b>2,712</b>
<b>Leverage Ratio</b>	<b>47%</b>	<b>42%</b>	<b>48%</b>

## Separate Statements of Comprehensive Income

(Unit: KRW 100 millions)

	2022	2021	2020
Sales Revenue	1,903	1,816	1,661
COGS Ratio (%)	58.7%	59.0%	59.2%
R&D Expense	120	149	139
R&D Ratio (%)	6.3%	8.2%	8.4%
Operating Income	123	132	85
Margin (%)	6.5%	7.3%	5.1%
EBITDA	192	203	150
EBITDA (%)	10.1%	11.2%	9.0%
Net Income	20	24	-55
Margin (%)	1.1%	1.3%	-3.3%

## Consolidated Statements of Comprehensive Income

(Unit: KRW 100 millions)

	2022	2021	2020
Sales Revenue	1,909	1,825	1,697
COGS Ratio (%)	58.4%	58.5%	57.7%
R&D Expense	243	225	180
R&D Ratio (%)	12.7%	12.3%	10.6%
Operating Income	-2	56	40
Margin (%)	-0.1%	3.1%	2.4%
EBITDA	69	131	108
EBITDA (%)	3.6%	7.2%	6.4%
Net Income	-42	-28	-101
Margin (%)	-2.2%	-1.5%	-6.0%

\* The differences between non-consolidated and consolidated operating profit and net profit are related primarily to R&D expenditures by subsidiary Contera Pharma.



