

# Biomodulation

Sustainable AI-Based Eco-Friendly Smart Healthcare

BEST WELL Stem-cell Inc.

# 01. Prologue

# A Health Revolution Unlocked by Biomodulation

Modern individuals face daily battles against cellular aging and immune decline. While conventional treatments have focused on symptom relief, a fundamental solution is essential. Biomodulation technology presents an innovative approach by activating mitochondria, enabling cells to heal themselves. By leveraging 5-Aminolevulinic Acid (5-ALA) and Photobiomodulation Therapy (PBMT), this technology enhances cellular energy, strengthens immunity, and shifts the paradigm beyond simple treatment to one of sustained health and recovery.

We are currently living in the midst of the 5th Industrial Revolution, where AI, biotechnology, and the wellness industry converge. Biomodulation stands at the heart of this transformation, leading a new paradigm of self-healing (Self-Care).

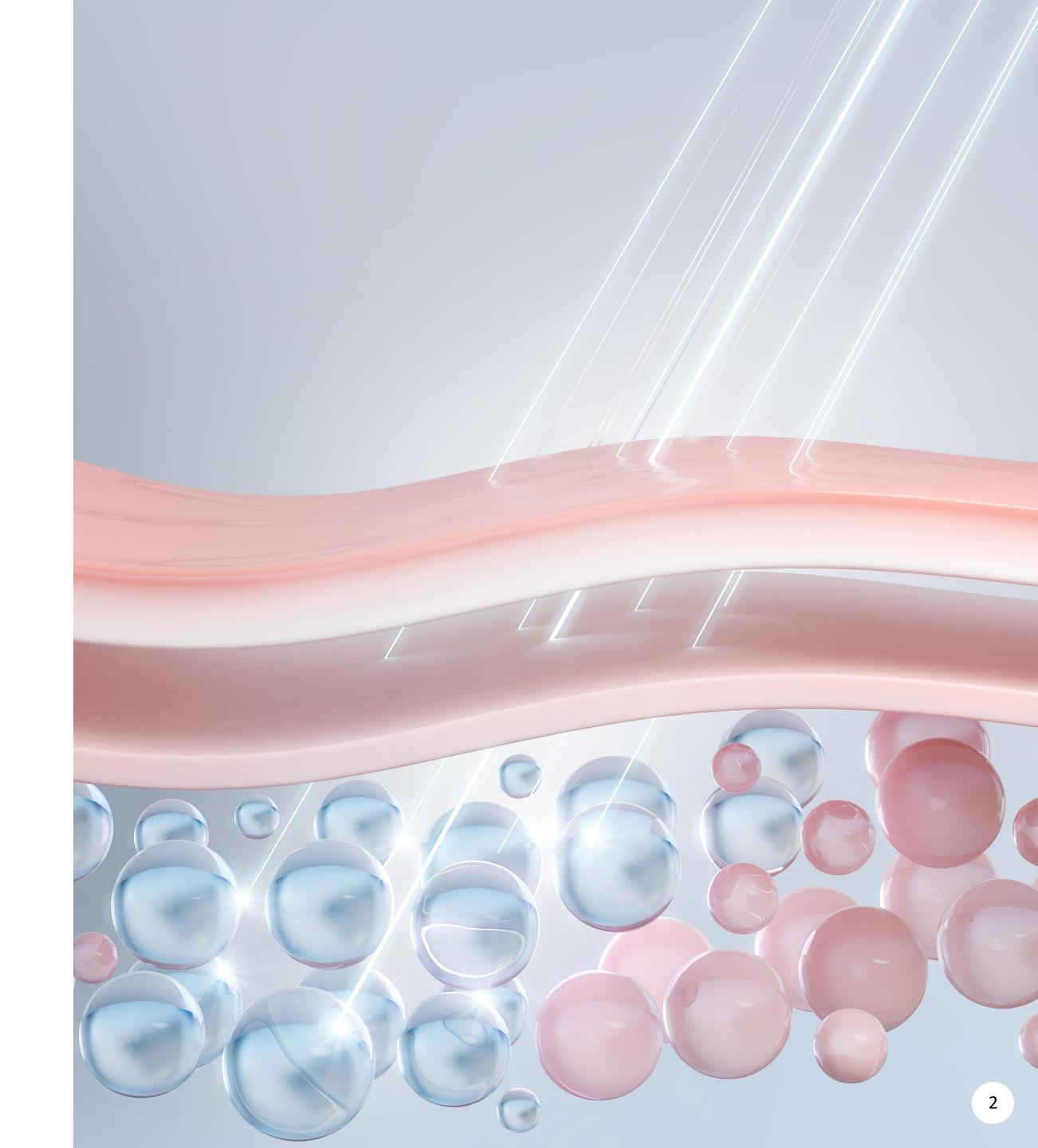
BestWell Stemcell offers personalized solutions through its three-step Biomodulation Care process: "Ingest  $\rightarrow$  Apply  $\rightarrow$  Light Therapy." Our mission is to create a future where individuals live healthier, more beautiful, and longer lives.

We have entered the era of Self-Care, where individuals take charge of their health beyond conventional treatments.

BestWell Stemcell Co., Ltd. is leading the way in this cellular health revolution.

#### Biomodulation:

Biomodulation refers to a technology that regulates the body's natural systems to enhance cellular recovery and improve immune function. It focuses on activating intracellular energy centers such as mitochondria to boost the cell's innate healing capabilities. This technology is non-invasive and safe, making it widely applicable for addressing chronic diseases, promoting skin health, and strengthening immunity.



#### 02. CEO & Founder Introduction

# Introduction to Dr. Jinwang Kim

Kim Jin-wang became the first Korean to be listed in the world's top three biographical directories, including the Cambridge International Biographical Centre (IBC), the American Biographical Institute (ABI), and Marquis Who's Who. Notably, in 2009, he was featured in the special edition of Marquis Who's Who in the World.

He gained worldwide recognition by pioneering the first-ever application of Er. Cr. YSGG laser technology (utilizing water, light, and air) in complex craniofacial surgeries and advanced rhinoplasty procedures. This breakthrough earned him the highest academic award from the World Association for Laser Therapy (WALT), where he also served as president, elevating South Korea's global reputation in laser and phototherapy.

Kim has been a driving force behind medical innovation, combining 5-Aminolevulinic Acid (5-ALA) with laser therapy to develop biomodulation technology. His work has advanced stem cell therapy and tissue regeneration, leaving a lasting impact on the field.

He was the first Korean to contribute to global medical and plastic surgery textbooks, based on his reports to the Korean Society of Plastic and Reconstructive Surgeons, the Korean Burn Society, the Korean Society for Surgery of the Hand, and the International Society of Plastic Surgery. His surgical techniques and innovations in laser therapy have been widely adopted in medical practices worldwide.

Through the convergence of biotechnology, AI, and laser-based phototherapy, Kim Jin-wang is presenting a new paradigm at the center of the 5th Industrial Revolution. His vision of "moving beyond treatment to an era of self-healing" will be a key driver of sustainable future healthcare.



#### Dr. Jin-wang Kim - Key Career Highlights

- CEO, BestWell Stemcell Co., Ltd.
- President, International Society for Stem Cell Research (ISSCR)
- President, International Society for Laser Medicine and Surgery (ISLSM)
- Honorary Professor, Cambridge International Biographical Centre (IBC), UK
- Member, Korean Federation of Science and Technology Organizations, Ministry of Education, Science, and Technology, South Korea
- Selected as one of the IBC Leading Scientists of the World
- Full Member, American Society of Plastic Surgeons (ASPS)
- President, International Society for Laser Medicine and Surgery (ISLSM)
- CEO, International Society for Photodynamic Therapy (ISPDT)

# 03-1. The Key Technical Difference

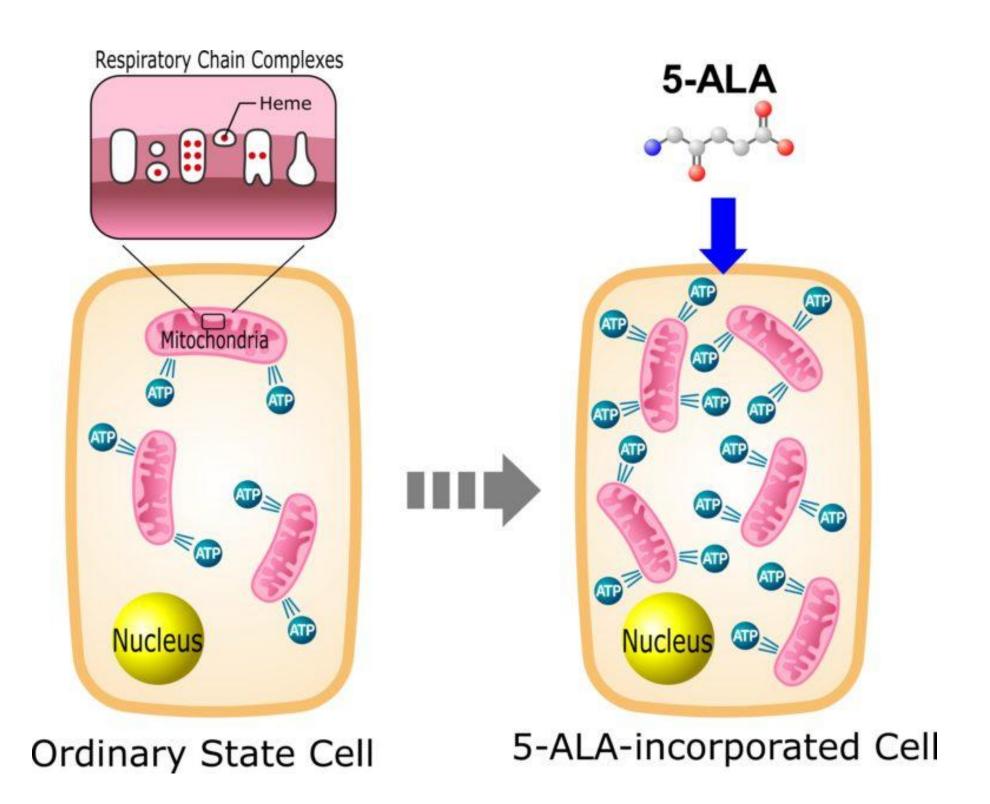
# Biomodulation:

Innovative Technology
Awakening Cellular Energy

Biomodulation technology is an innovative approach that activates the body's natural ability to heal cells. By utilizing 5-ALA (5-Aminolevulinic Acid) and Photobiomodulation Therapy (PBMT), it stimulates mitochondria, enhances cellular energy, and strengthens the immune system. Unlike conventional treatments, this method is non-invasive, induces natural cellular recovery, and offers high accessibility and cost efficiency.

5-ALA serves not only as a mitochondrial activator but also as a photosensitizer when combined with light of specific wavelengths, amplifying its therapeutic effects. Inside the body, 5-ALA is converted into protoporphyrin IX (PpIX), which absorbs light to generate reactive oxygen species (ROS). This process boosts cellular energy and enhances immune function. The benefits of photodynamic therapy (PDT) and skin regeneration using this mechanism have been demonstrated through various studies.

As a result, 5-ALA-based biomodulation offers significant cost savings compared to conventional stem cell therapies. Its non-invasive nature makes it a more economical and sustainable solution for long-term treatments.



- 5-ALA is an essential precursor that activates mitochondria, enabling cells to function with greater vitality.
- PBMT (Photobiomodulation Therapy)
  delivers energy to cells, promoting rapid
  recovery and enhanced immune
  responses.

# 03-2. The Key Technical Difference

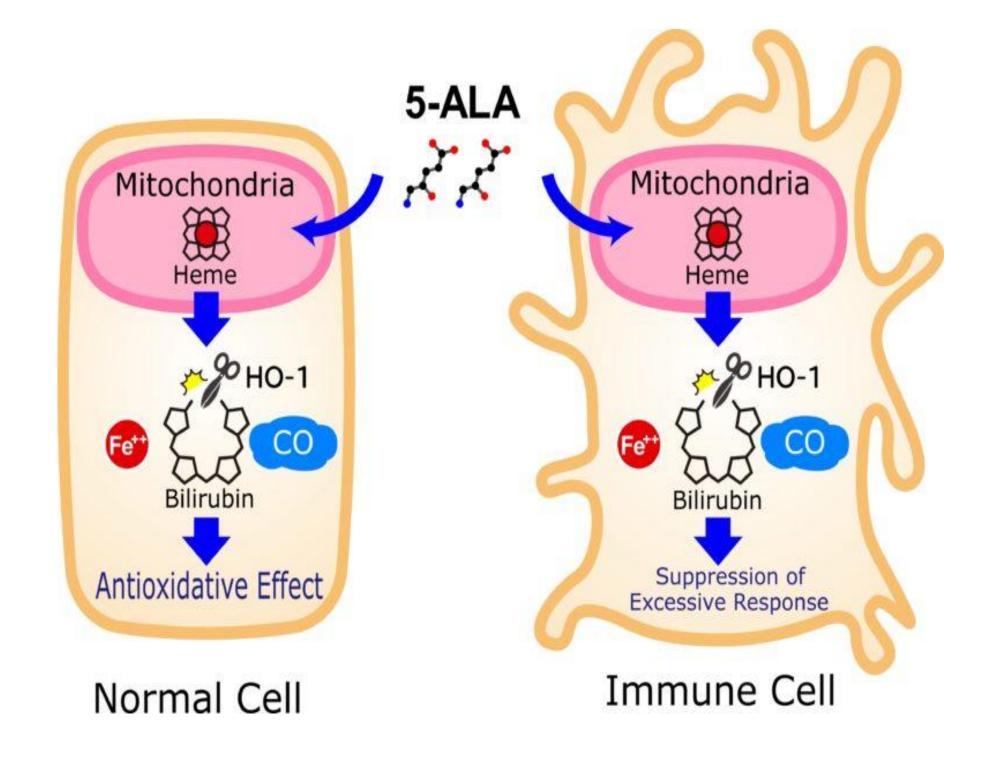
5-ALA Photosensitizer and Photodynamic-Based Immunity & Antioxidant Enhancement

Our bodies are exposed daily to stressors such as viruses, bacteria, and environmental pollution.

A weakened immune system can lead to not only infectious diseases but also aging and chronic conditions. 5-ALA combined with phototherapy (Photodynamic Therapy, PDT, and Photobiomodulation Therapy, PBMT) offers an innovative solution by activating the body's natural immune responses and regulating oxidative stress to protect cells.

The 5-ALA + phototherapy (photodynamic) technology strengthens the immune system and maximizes antioxidant effects through the regulation of reactive oxygen species (ROS). By enhancing immune function, it provides preventive benefits against diseases and aging, delivering a differentiated healthcare solution. This technology is applicable across various wellness and healthcare fields, including improved skin immunity, prevention of viral infections, and mitigation of inflammatory conditions.

Patent Number: PCT/KR2021/015034, Domestic and International Applications Filed



- The combination of 5-ALA and phototherapy increases NK cell activation by 30% and improves immune responses by 40%.
- Following PBMT application, the production of antioxidant enzymes (SOD, Catalase) increases by 50%.

<sup>\*</sup>When combined with PBMT (Photobiomodulation Therapy), mitochondrial ATP production is further enhanced, and HO-1 expression is promoted, maximizing immune balance and antioxidant effects. This helps suppress hypersensitive immune responses and strengthens resistance to viruses and inflammatory reactions.

# 03-3. The Key Technical Difference

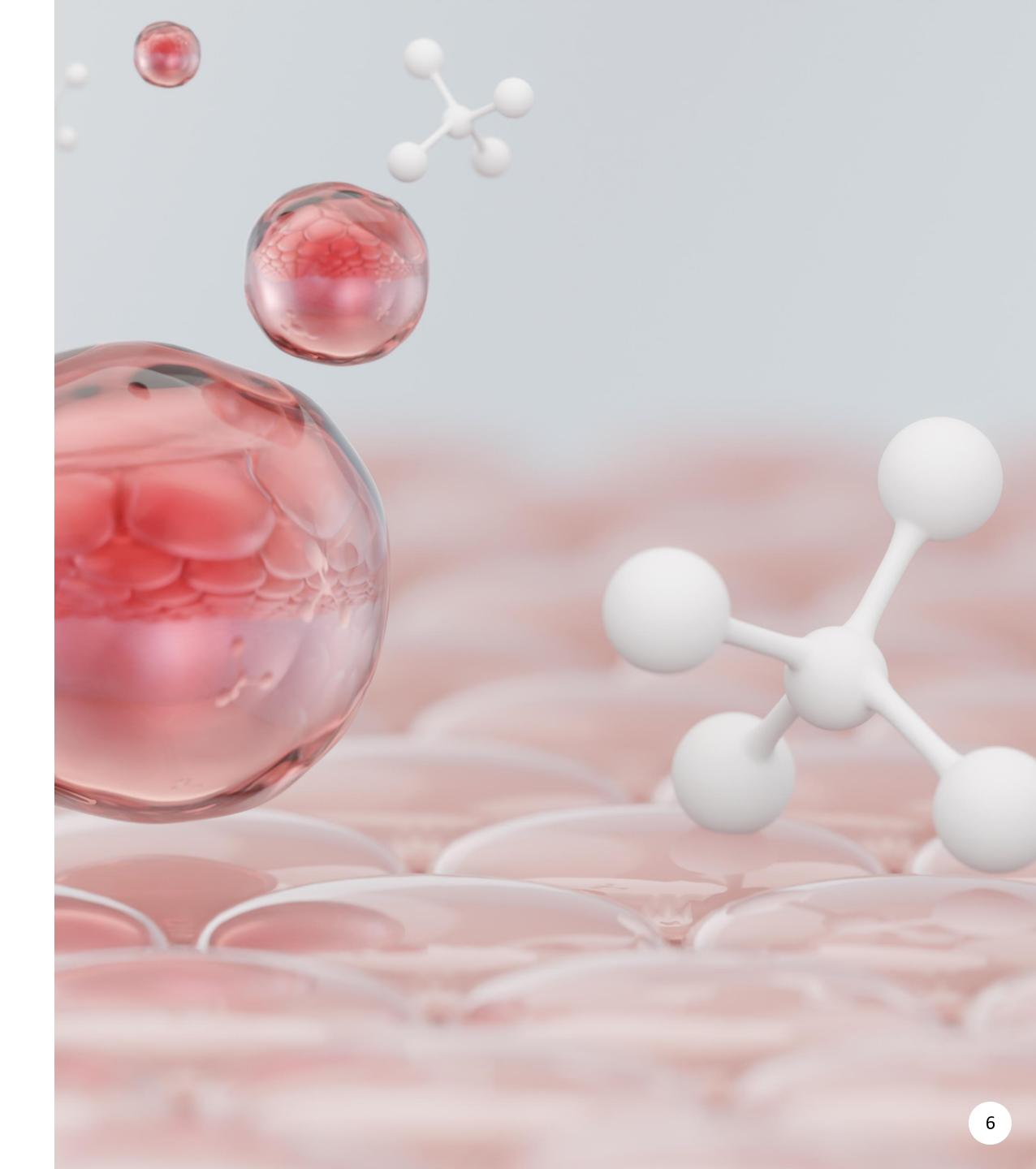
# 5-ALA + Phototherap:

Moving Beyond Conventional Treatments to Sustainable Cellular Health Innovation

Traditional medical and cosmetic treatments primarily focus on symptom relief, limiting their effectiveness in fundamentally restoring cellular health. As a result, there is a growing demand for new approaches that improve cellular health in a more economical and sustainable manner.

Best Well Stem cell's 5-ALA + phototherapy (photodynamic) technology is emerging as an innovative bio-healthcare solution that is more cost-effective, non-invasive, and accessible compared to conventional treatments. By maximizing immune enhancement, cellular regeneration, and antioxidant effects, this technology goes beyond symptom relief to support disease prevention and long-term health maintenance. Compared to expensive stem cell therapies and specialized medical procedures, it offers superior cost efficiency and can be applied across a wide range of settings, from home care to professional medical institutions.

BestWell Stemcell's biomodulation technology is positioned as a key innovation, transforming not only the beauty and wellness sectors but also reshaping the medical industry paradigm. By supporting the prevention and treatment of various diseases, it will enable a cost-effective, personalized, and futuristic healthcare model.



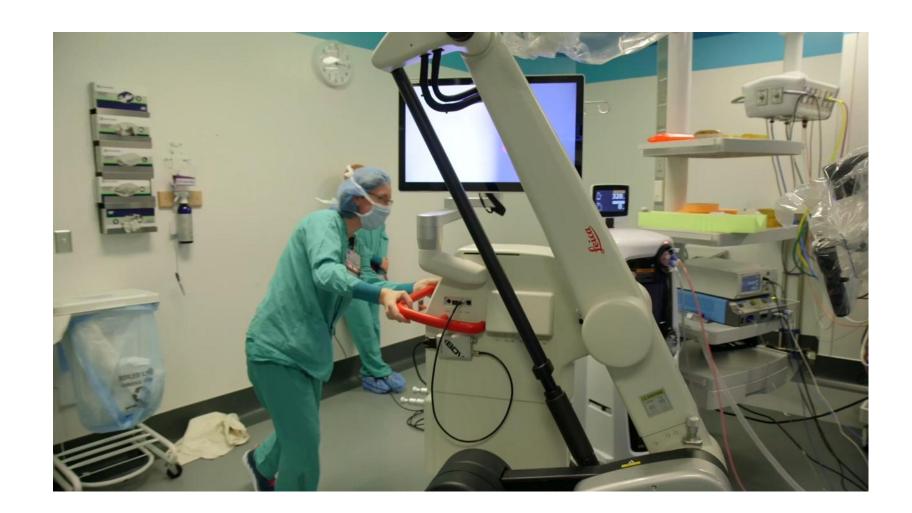
# Clinical Applications of 5-ALA-Based Photodynamic Therapy (PDT)

#### Component

✓ **5-Aminolevulinic Acid (5-ALA)**: Converts into **Protoporphyrin IX (PpIX)** within the body, accumulating at high concentrations in cancer cells.

#### Efficacy

- ✓ Clear Visual Identification of Tumor Sites: Differentiates cancerous tissues (appearing red) from normal tissues (appearing blue), reducing misdiagnosis and surgical failures.
- ✓ **Precise Surgical Guidance**: Enables real-time differentiation of tumor infiltration margins during surgery, ensuring accurate resection.
- ✓ Enhanced Safety and Accuracy in Tumor Removal: Minimizes damage to normal tissues while reducing residual tumor presence.
- ✓ **Expanded Applications**: Beyond glioblastoma, applicable for diagnosing deep-seated tumors and treating other cancers.

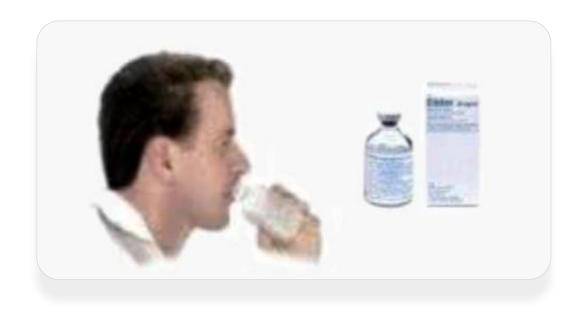


#### 5-ALA-Based Photodynamic Therapy (PDT) Video

5-ALA is widely utilized in surgeries for malignant brain tumors, such as glioblastoma (GBM), playing a crucial role in visually enhancing tumor sites for precise resection.

By interacting with specific wavelengths of light during surgery, tumors appear red, allowing for effective identification and removal of residual tumor tissue.

# Clinical Applications of 5-ALA-Based Photodynamic Therapy (PDT)



Step 1
Oral Administration of 5-ALA

The patient orally ingests 5-Aminolevulinic Acid (5-ALA) approximately three hours before surgery.

Effect: 5-ALA is absorbed into the body and metabolized into Protoporphyrin IX (PpIX), which selectively accumulates in cancer cells at high concentrations.



Step 2
Fluorescent Light Exposure

During surgery, fluorescent light (typically at 405nm or 635nm wavelengths) is directed onto the tumor site.

Effect: PpIX accumulated in the tumor emits fluorescence, producing a distinct pink color, enabling precise tumor visualization.



Step 3
Tumor Resection and Surgical Guidance

Fluorescent light clearly delineates tumor boundaries, providing real-time guidance for surgical excision.

Effect: nhances resection accuracy by clearly distinguishing tumors from normal tissue.

Minimizes damage to healthy tissue, improving surgical precision and patient safety.

# Core Technologies Held

Patent Registration Number: No. 10-0901315

Moist Wound Dressing and Laser Treatment Method

Patent Registration Number: No. 10-2265592

Composition Containing 5-Aminolevulinic Acid Hydrochloride

Patent Registration Number: No. 10-2182630

Eco-Friendly Smart Photosensitizer and Photodynamic Stem Cell Therapy Comprising It

Patent Registration Number: No. 10-1244434

Light and Photodynamic Therapy Methods and Devices for Treating Various Skin Conditions, Including Skin Lesions

Patent Registration Number: No. 10-2281207

Offline Extracorporeal Blood Photomodulation Device

Patent Registration Number: No. 10-2252218

**Eco-Friendly Smart Blood Modulation Device** 

A Method for Safely and Rapidly Dressing the Patient's Affected Area Using Gel, with Concurrent Laser Treatment Applied Over a Transparent Member

Cosmetic Composition for Improving Acne and Skin Troubles Based on a Recipe Containing 8-12% by Weight of 5-Aminolevulinic Acid and Natural Additives

Photosensitizer and Photodynamic Stem Cell Therapy with Minimized Side Effects by Using Profimer Sodium and Hydroxypropyl Cellulose Together

Laser Therapy Device Designed to Guide the Photosensitizer Toward the Skin and Remove Subcutaneous Fat through Photodynamic Therapy

A Device for Collecting Blood, Exposing It to Ultraviolet Light, and Reinfusing the Processed Blood Extracorporeally to Alleviate Skin Symptoms and Improve Immune Status

A Device for Collecting Blood by Passing Centrifuged Blood Through a Transparent Tube Equipped in the Light Irradiation Unit, Exposing It to Light, and Filtering It **Cosmetic Products** 

**Medical Devices** 

Health Functional Foods

Stem Cell Therapy

**Blood Modulation** 

# 04-1. The Effect

# Innovative 3-Step PersonalizedCare Through Biomodulation

"Ingest, Apply, Light Therapy – The Complete Solution for Cellular Health"
The 3-step personalized care (ingestion, topical application, light therapy) based on
BestWell Stemcell's biomodulation technology maximizes cellular activation, immune
enhancement, and antioxidant protection, delivering sustainable health benefits.

Summary of Key Effects			
3-Step Personalized Care	Key Effects (The Effect)	Clinical Data & Scientific Evidence	
1 Ingest (Oral Intake – GLIOLA, Immune Vita Cobi & Everything)	Immune Enhancement & Strengthening of the Body's Defense Mechanisms	40% Increase in NK Cell Activation (50% Improvement in Immune Function) - KTR Human Application Test	
2 Apply (Topical Application – 5-ALA- 17 Mask Pack)	Cellular Regeneration & Strengthening of the Skin Barrier	35% Increase in Skin Elasticity 40% Increase in Skin Cell Density - KTR Research Report	
3 Light Therapy (PBMT Device – BEST WELL PBMT D&PS DEVICE)	Mitochondrial Activation & Maximization of Antioxidant Effects	30% Increase in ATP Production 45% Improvement in Cellular Recovery Rate - Joint Study by KTR & YY Research Institute	



# 04-2. The Effect

# The 5th Industrial Era's Medical IP Competitiveness Gaining Pharma's Attention IP-Based Healthcare Revolution

Global Healthcare Paradigm Shift and the Importance of IP

- ✓ Leading global pharmaceutical companies are actively adopting Al-driven and biomodulation-based technologies for new drug development and personalized treatment solutions.
- ✓ 5-ALA-based biomodulation IP is gaining significant attention as a key asset that has the potential to revolutionize traditional cell regeneration and therapeutic approaches.

Key Effect Summary			
Core IP	Application Fields	Potential Collaboration in the Pharmaceutical Sector	
Extracorporeal Blood Photomodulation Device IP	Immunotherapy and Cancer Treatment Support	Possibility of synergy with pharmaceutical cancer drug research through extracorporeal blood purification, which suppresses cancer cells and enhances immune function.	
5-ALA-Based Photosensitizer IP	Cancer Diagnosis and Photodynamic Therapy (PDT)	Improving cancer diagnosis accuracy and enhancing treatment effectiveness in parallel with the development of targeted anticancer drugs.	
PBMT (Photobiomodulation Therapy)-Based Device Technology	Tissue Regeneration, Inflammation Reduction, and Pain Management	Potential for joint development of treatments for inflammatory diseases or pain relief medications.	
AI-Based Diagnostic Platform IP	New Drug Candidate Analysis and Clinical Data Management	Al analyzes clinical data, reducing new drug development costs and increasing success rates.	



# 04-3. Total Wellness Solutions

# Immune-Boosting Solutions

Best Well Stem Cell's biomodulation technology powers the ImmuneVita Series, delivering rapid and long-lasting immune enhancement and fatigue recovery.

#### **Key Products**

- ImmuneVita Everything: Comprehensive immune support and antioxidant care
- ImmuneVita COVI: Infection prevention and immune defense enhancement

#### Core Technology & Competitive Advantage

- ✓ Cell Activation via 5-ALA-Based Biomodulation
- √ Faster and Longer-Lasting Immune Enhancement Compared to Conventional Supplements

#### Market Opportunity

- √ Rapid Growth of the Global Immune Product Market
- ✓ Accelerated Revenue Generation Through Expansion of Distribution Channels



MULTI Immun VITA Everything

MULTI Immun VITA Cov

# 04-3. Total Wellness Solutions

# Skin Regeneration & Care

Best Well Stem Cell GLIOLA 5-ALA 17 Biomodulation Sheet Mask Pack

#### **Key Products**

GLIOLA 5-ALA 17 Sheet Mask Pack
A customized skincare solution that maximizes skin regeneration and antioxidant effects for damaged skin.

#### Core Technology & Competitive Advantage

- ✓ Enhances cell regeneration through the combination of 5-ALA and Photobiomodulation Therapy (PBMT).
- ✓ Strengthens the skin barrier by providing hydration and elasticity simultaneously.

#### **Market Opportunity**

- ✓ Expansion of the global sheet mask market aligned with the growing homecare skincare trend.
- ✓ Broad consumer adoption through B2C distribution channels, driving long-term brand value creation.



BestWell Stemcell GLIOLA 5-ALA-17 Biomodulation Sheet Mask Pack

## 04-3. Total Wellness Solutions

# **Advanced Phototherapy Device**

Best Well Stem Cell GLIOLA BEST WELL PBMT D&PS DEVICE Biomodulation Beauty Device

The GLIOLA BEST WELL PBMT D&PS DEVICE, developed by Best Well Stem Cell, integrates phototherapy and biomodulation technology to promote deep cellular regeneration and establish a healthy skin environment.

#### **Key Products**



GLIOLA BEST WELL PBMT D&PS DEVICE

An innovative non-invasive device designed for skin recovery and anti-aging.

#### Core Technology & Competitive Advantage

- ✓ Stimulates cellular activity and collagen production through Photobiomodulation Therapy (PBMT).
- ✓ Minimizes skin irritation with a non-invasive approach, ensuring long-term effectiveness.

#### **Market Opportunity**

- ✓ Expansion into the premium homecare and global beauty device market.
- ✓ Diversified channel strategy targeting B2B (hospitals and dermatology clinics) and B2C (homecare solutions).



BestWell Stemcell GLIOLA BEST WELL PBMT D&PS DEVICE

14

## 05. Market Volume

# Growth Potential of Best Well Stem cell

① Outlook for the Beauty and Health Food Markets
Customized healthcare solutions incorporating biomodulation technology are expected to experience explosive growth across various sectors.

- Device Market: 60 trillion KRW
   (Focused on light therapy and PBMT-based beauty & health devices)
- ✓ Immune-Boosting Supplements Market: 20 trillion KRW (Featuring 5-ALA-based immune-enhancing health functional foods)
- ✓ Mask Pack and Skin Regeneration Product Market: 8 trillion KRW (Skincare based on PBMT and antioxidant care)
- B2B Healthcare Market (Nursing Homes, Clinics, etc.):
  Steady growth driven by aging populations and the rise of chronic diseases.

② Scalability and Market Potential in the Medical Device Sector BestWell Stemcell is poised for significant growth in the field of extracorporeal blood modulation and treatment, driven by its innovative medical device technologies utilizing phototherapy and 5-ALA.

- ✓ Medical Device Market: Approximately 50 trillion KRW (Focused on extracorporeal blood treatment, laser, and phototherapy equipment)
- ✓ Various Devices Featuring Patented Technologies for extracorporeal photomodulation and improved blood circulation.



#### **Market Size UP**

✓ Expansion of the Immunity & Antioxidant Market, Acceleration of Global Wellness Trends, Market Growth Driven by Technological Innovation

#### **Growth Factors**

✓ Aging Population, Increase in Chronic Diseases, and Growing Demand for Immune Enhancement in the Post-COVID Era

# 6-1. Vision

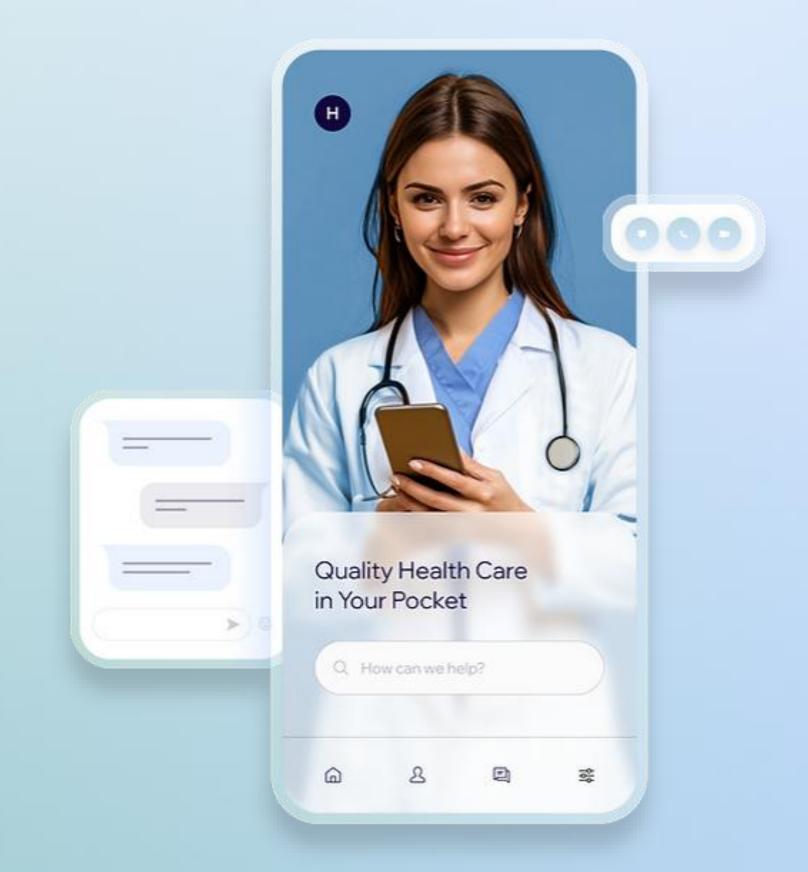
# Development of Al-Based Biomodulation Skincare Technology, BioSkin Intelligence

#### **Project Objective**

To combine AI with biomodulation-based phototherapy color diagnosis technology, delivering innovative solutions for personalized skincare and cosmetic procedures.

- ✓ **Skin Condition Diagnosis:** Utilize AI to interpret color changes and concentrations during phototherapy for accurate disease detection and skin condition assessment.
- ✓ **Personalized Solution Recommendations:** Integrate color data and AI analysis to recommend the most suitable skincare products and procedures.
- ✓ Collaboration with Dermatology Clinics: Leverage clinical data to develop and expand a scalable commercial model.

Core Functions and Technical Elements			
Core Technology	Detailed Features and Differentiation Points		
Color-Based Skin Diagnosis (Color Diagnostic)	AI Analysis of Color Changes During Phototherapy (e.g., Red Intensity, Blue Hue Variations) for Diagnosing Skin Conditions, Including Inflammation and Recovery Phases		
Al-Powered Personalized Recommendation Algorithm	Combining Color Data and Clinical Data to Provide Optimized Recommendations for Personalized Skincare Products and Laser Treatments		
Al Chatbot-Based User Consultation	Providing Personalized Solutions and Treatment Guidance Based on Color Diagnosis Results in Response to User Inquiries		
Pre- and Post-Treatment Effect Measurement and Updates	Continuously Analyzing Color Changes Before and After Phototherapy to Provide Feedback on Skin Improvement		



- "A Leading Company at the Core of the 5th Industrial Revolution through Smart Bio-Tech"
- ✓ "Leading the Personalized Digital Healthcare Market through the Convergence of Phototherapy & AI"
- "Building a Smart Healthcare System for Self-Diagnosis and Personalized Care"

## 6-2. Vision

# Al-Based Color Diagnosis Technology

An Innovative Approach for Accurate Disease Diagnosis and Treatment

BestWell Stemcell's Al-Based Color Diagnosis Technology is an innovative diagnostic system that combines 5-ALA with light of specific wavelengths to analyze color reflections according to cellular conditions, visually assessing the progression and severity of diseases. When 5-ALA is converted into protoporphyrin IX (PpIX) within the body, changes in color intensity occur. These changes are precisely interpreted using a standardized color spectrum and Al algorithms, calibrated to a white balance reference.

By non-invasively measuring real-time color changes, the system provides personalized treatment guidance in various fields, including early cancer detection, skin regeneration, and chronic disease management. The technology supports an integrated approach from diagnosis to treatment monitoring, revolutionizing conventional medical and care methods while introducing a new paradigm to the global healthcare industry.

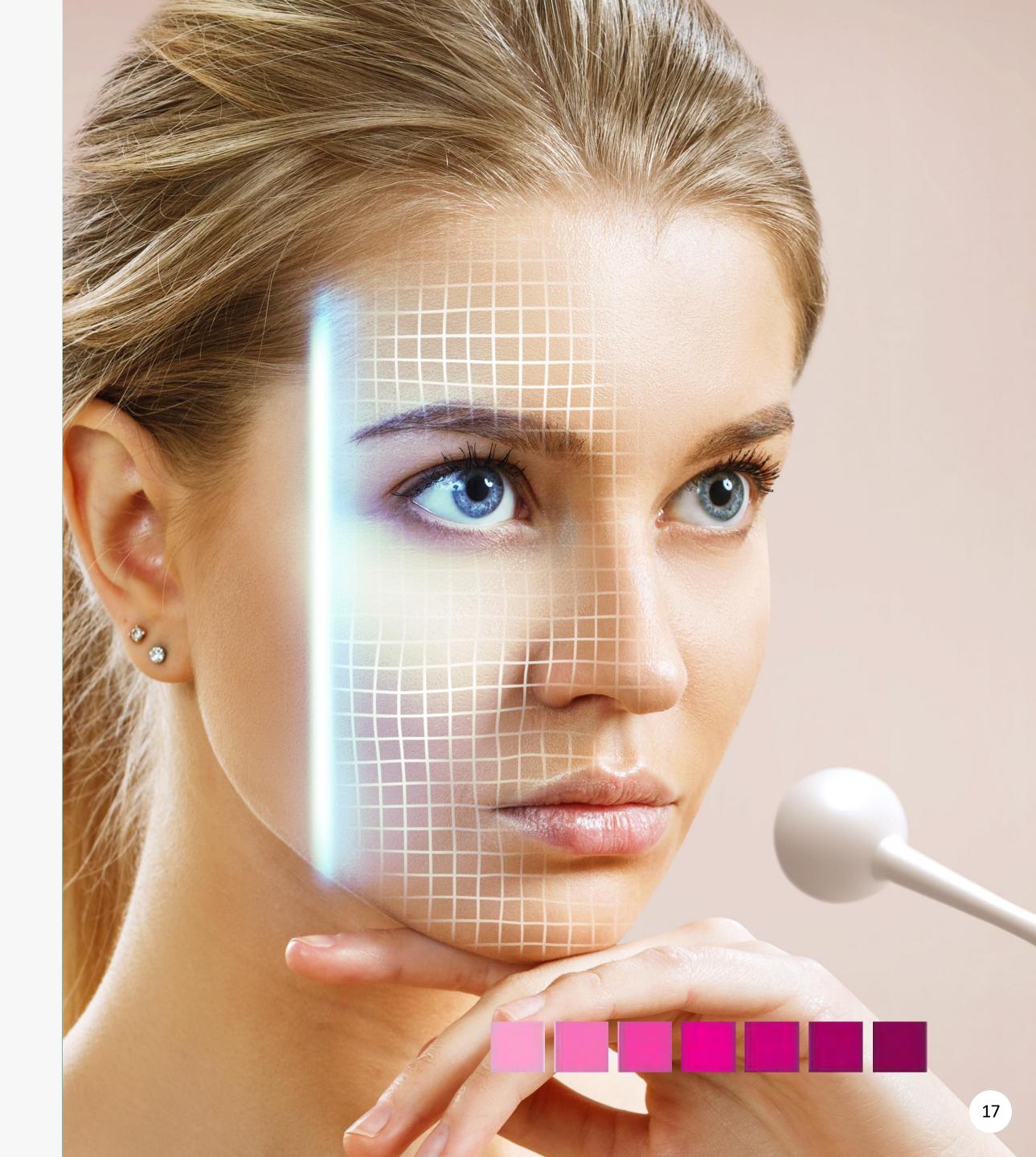


Cancer Diagnosis: Enables early detection by visually identifying the activity level of early-stage cancer cells.

To ensure consistent interpretation of diagnostic results, color data is analyzed using AI to provide personalized treatment guidance for each individual.

#### **Key Applications**

- ✓ **Cancer Diagnosis:** Enables early detection by visually identifying the activity level of early-stage cancer cells.
- ✓ **Skin Regeneration:** Analyzes damaged skin or inflammation through color data to recommend appropriate treatments.
- ✓ **Chronic Disease Management:** Monitors color intensity changes to support long-term management based on treatment progress.



# How to Use

# 01) Pre-Treatment

- ✓ Before using the sheet mask, attach the white balance patch to the skin.
- ✓ Use the smartphone app to capture an image of the area with the attached patch.

## 02) Post-Treatment

- ✓ After using the sheet mask, reapply the white balance patch to the same location.
- ✓ Capture an image using the **same method** and upload it to the **app**.



# How It Works

#### **Color Change Detection**

✓ Al analyzes color data from pre- and post-treatment images to compare skin improvement levels.

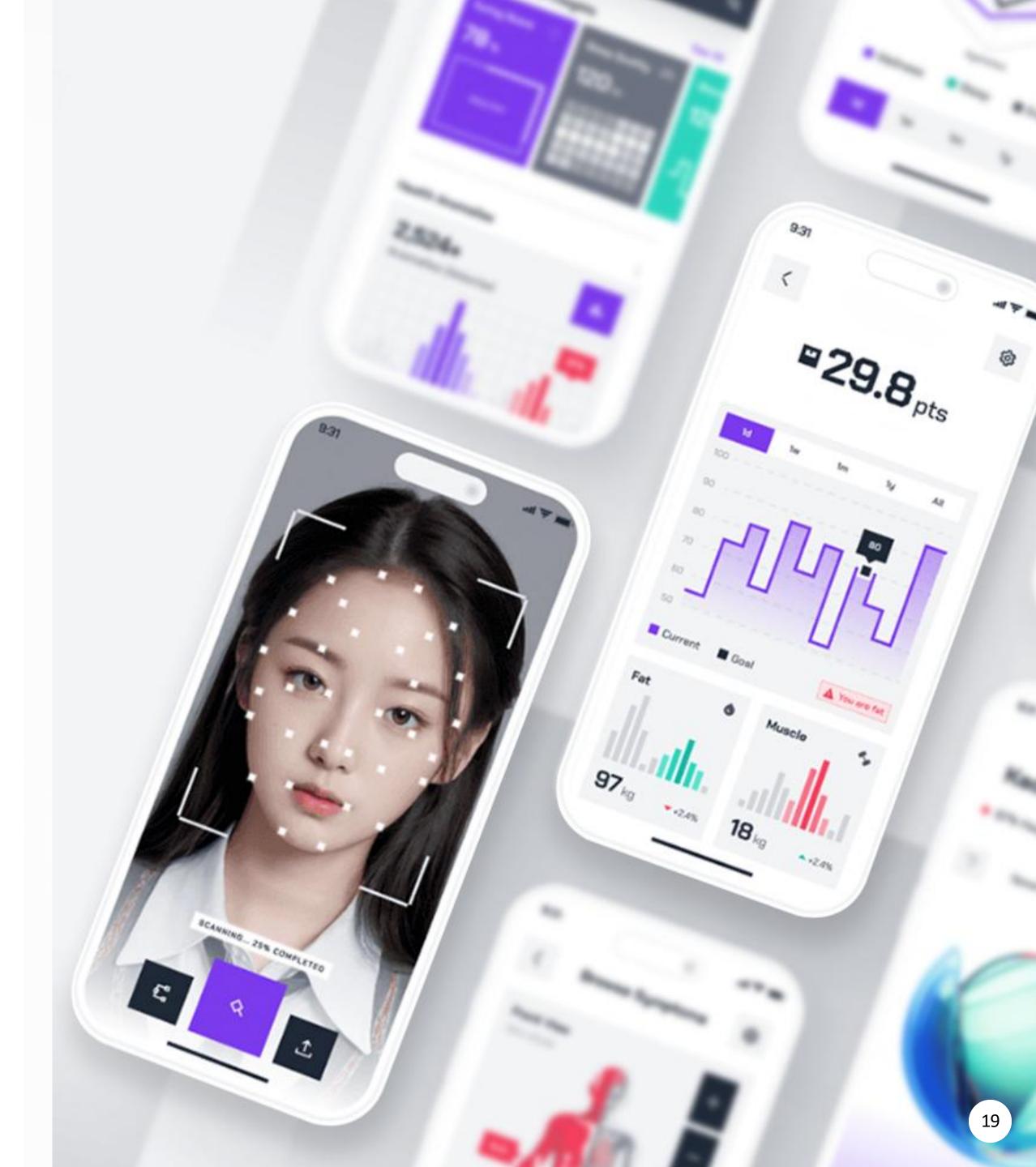
#### White Balance Technology Application

Measures precise color changes based on the white balance patch to visualize skin condition

- √ Hydration Level
- ✓ Skin Tone & PigmentationSkin Elasticity & Collagen Status
- ✓ Oil Balance
- ✓ Redness & Sensitivity
- ✓ Skin Thickness & Exfoliation

#### Results Analysis & Feedback

- ✓ The diagnostic function works best when used with Best Well Stem Cell's 5-ALA Mask Pack and ImmuneVita products, creating optimal synergy to help users continuously track and improve their skin condition.
  - Comparison Graph: Visual representation of color changes and skin condition before & after treatment
  - ✓ Improvement Index: Numerical skin improvement score to track progress



# 6-3. Vision

# Treatment Based on Extracorporeal Blood Photomodulation Devices

#### A New Leap in the Medical Device Market

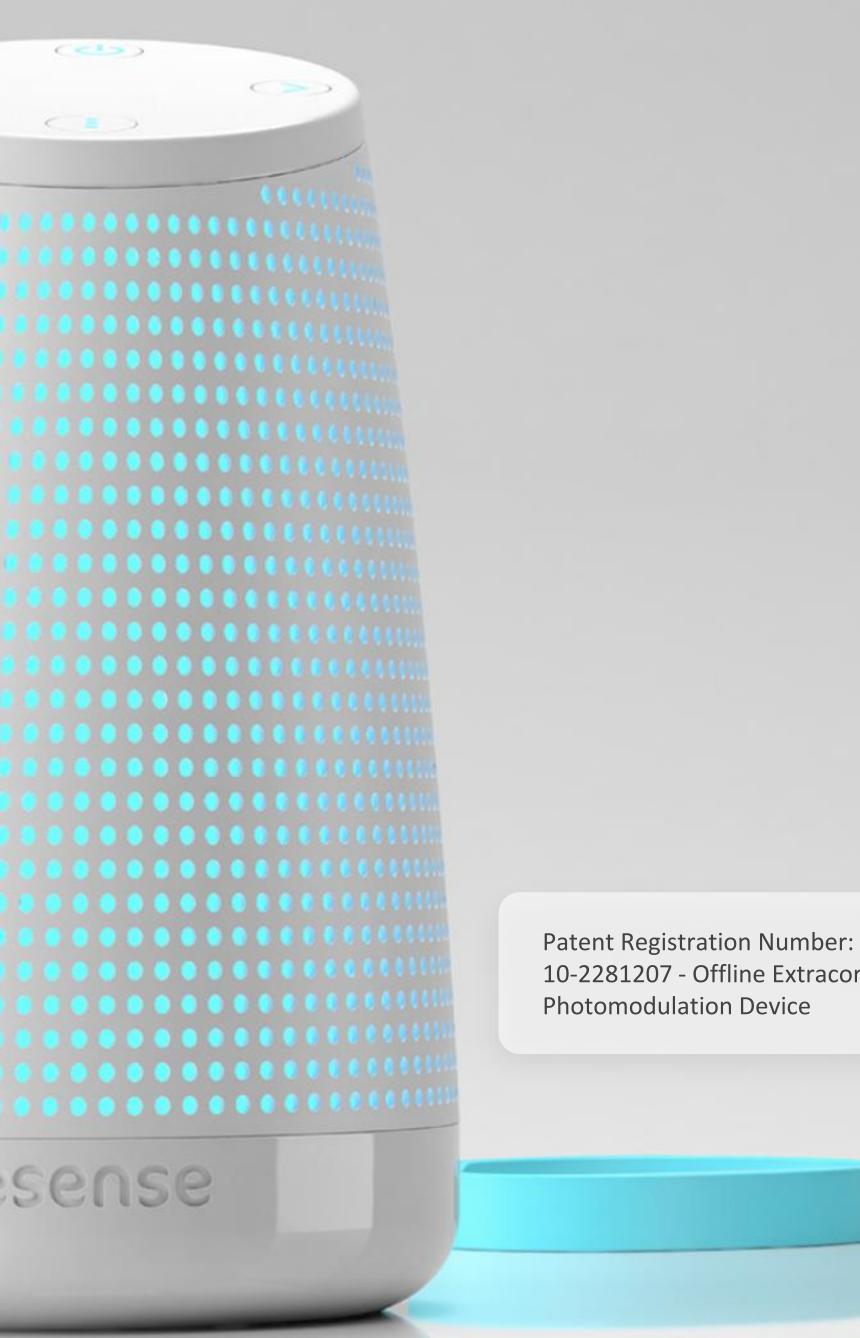
The offline extracorporeal blood photomodulation device is an innovative medical device applicable in various healthcare facilities, including hospitals, dermatology clinics, plastic surgery centers, dental clinics, and ophthalmology centers.

It purifies the blood by extracting it and exposing it to LED light and oxygen, maximizing immune enhancement and cellular regeneration. This technology significantly simplifies traditional extracorporeal blood treatments, which are typically complex and costly, making the process more efficient and accessible.

#### **Key Features and Applications**

- ✓ **Non-Invasive Blood Purification:** Blood is drawn, exposed to LED light through a tube for purification, and reinfused, helping reduce inflammation and enhance immunity within the body.
- ✓ **Hospital-Specific Solutions:** Can be integrated with existing hospital equipment such as dialysis machines and stem cell therapy systems.
- ✓ **Applicable to Various Medical Institutions:** Usable not only in general hospitals but also in specialized clinics, including dermatology, plastic surgery, ophthalmology, and dental centers.

This device is positioned as a customized treatment solution in the B2B medical market, maximizing treatment efficacy for hospitals and clinics while offering a cost-effective alternative to high-cost treatments like stem cell therapy. Through this device, BestWell Stemcell aims to establish itself as a leader in extracorporeal blood photomodulation technology in the global medical market and drive the next-generation healthcare paradigm forward.



10-2281207 - Offline Extracorporeal Blood Photomodulation Device

# 14. Competitive Advantage

# Aiming for a 2027 IPO: Leap Toward Becoming a Global Biotech Leader!

#### Differentiation Points Unique to BestWell Stemcell



#### Biomodulation + PBMT + Exclusive 5-ALA Technology Combination

- ✓ Cell Regeneration & Immune Enhancement Solutions based on mitochondrial activation
- ✓ Non-invasive & cost-effective alternative treatment compared to traditional stem cell therapy
- ✓ **Integration of phototherapy (PBMT) with 5-ALA-based photosensitizers** to differentiate from existing stem cell and skin regeneration treatments

#### Differentiation Points Unique to BestWell Stemcell



#### Hybrid Business Model Encompassing B2B & B2C

- ✓ B2C: Al-based skin diagnostic app + homecare devices → Provide personalized solutions to individual consumers
- √ B2B: Offer treatment solutions to hospitals, clinics, nursing homes, and aesthetic centers → Secure stable recurring revenue
- ✓ B2G (Procurement): Collaborate with public healthcare organizations like WHO and UNOPS → Expand into the global healthcare market

#### Differentiation Points Unique to BestWell Stemcell



## **Technology Transfer Strategy for Global Expansion**

- ✓ Secure royalty income through country-specific ODM/OEM partnerships
- ✓ Dominate the PDT (Photodynamic Therapy) and biomodulation sectors, focusing on Turkey, Southeast Asia, and the Middle East
- ✓ Enter global medical device and functional cosmetics markets based on FDA and CE certifications

#### Global Market Expansion Roadmap



#### 2025: Licensing Agreements for Exports to Asia and Europe

- ✓ Turkey and European Market: R&D collaboration and exclusive licensing agreements with Sakarya University of Applied Sciences
- ✓ **Southeast Asia Expansion:** Establish B2B partnerships with medical device distributors in Singapore, Thailand, and Vietnam
- √ Japan and China Market Entry: Facilitate local registration for 5-ALA-based health functional foods and beauty devices

#### Global Market Expansion Roadmap



#### 2026: Entry into the U.S. Market Following FDA and CE Certifications

- ✓ **FDA Certification:** Registration of PBMT-based devices for skin regeneration and immune enhancement
- ✓ **CE Certification:** Official approval for medical device sales in the European market
- ✓ **Expansion in the U.S. and Europe:** Establish partnerships with major hospital and clinic chains

#### Global Market Expansion Roadmap



#### 2027: Global Branding and IPO Preparation

- ✓ **Global Branding:** Spread the concept of "biomodulation" across markets and enhance brand recognition
- ✓ **IPO Preparation:** Pursue initial public offering (KOSDAQ or overseas listing) after securing global market share
- ✓ M&A Potential: Maximize corporate value through collaboration or acquisition by global pharmaceutical, beauty, and healthcare companies

# 18-1. Key Patent Status

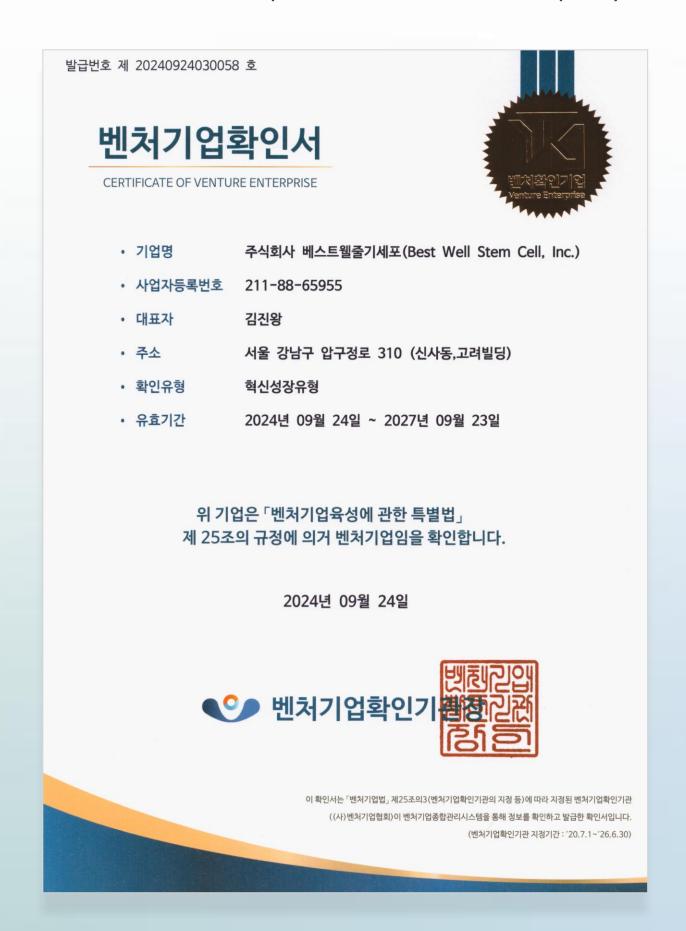


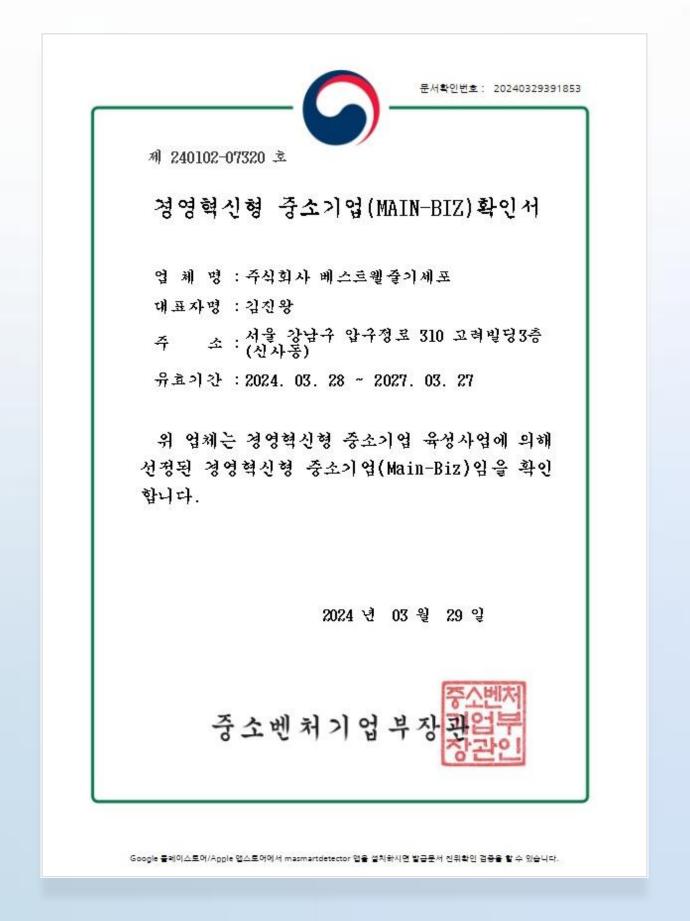




# 18-2. Key Patent Status

- ✓ Venture Business Certification: Official recognition of innovation and growth potential, securing high credibility in SME technology development and investment environments.
- ✓ Management Innovation SME (Main-Biz) Certification: Demonstrates business management capabilities for sustainable growth and operational innovation.
- ✓ ISO 9001 Certification: Compliance with international quality management system standards, enhancing trust in global medical and beauty device markets.







# 19-1. Our Technology Patents

No	Invention Field	Applicable Region	Patent Title	Application Number
1	A61K	USA	Composition containing 5-aminolevulinic acid hydrochloride	PCT/KR2021/015034
2	A61K	Europe	Composition containing 5-aminolevulinic acid hydrochloride	PCT/KR2021/015034
3	A61K	Japan	Composition containing 5-aminolevulinic acid hydrochloride	PCT/KR2021/015034
4	WIPO HAGUE WRCD1	Europe	Statement of grant of protection under Rule 18bis(1) of the Common Regulations of the Hague  Agreement	DM/234891
5	B04B A61L	USA	Eco-Friendly Smart Blood Modulation Device	US 12,036,565 B2
6	A61K	USA	Eco-Friendly Smart Photosensitizer and Photo-stemcell Therapy product Comprising same	US 11,654,195 B2
7	A61K	KR	Cosmetic Composition for Mask Packs Containing 5-ALA and Functional Mask Pack for Skin Improvement Containing the Same	Patent No. 10-2734884
8	A61K	KR	Composition for Photodynamic Therapy Containing 5-Aminolevulinic Acid Hydrochloride	Patent No. 10-2363327
9	A61K	KR	Composition Containing 5-Aminolevulinic Acid Hydrochloride	Patent No. 10-2265592
10	A61F	KR	Moist Dressing Material and Laser Treatment Method	Patent No. 10-0901315
11	A61M	KR	Offline Extracorporeal Blood Photomodulation Device	Patent No. 10-2281207
12	A61K	KR	Eco-Friendly Smart Photosensitizer and Stem Cell Therapy Product Containing It	Patent No. 10-2182630
13	A61M	KR	Eco-Friendly Smart Blood Modulation Device	Patent No. 10-2252218
14	A61H	KR	Skin Care Device	Patent No. 10-2689945
15	A61N	KR	Treatment of skin lesions, skin neoplasms, and skin cancer, vascular skin conditions, pain relief, hirsutism reduction, scalp and hair regeneration, skin regeneration, skin whitening, skin rejuvenation, anti-aging, localized fat cell reduction, adipose tissue reduction, combined stem cell therapy, simple or complex light therapy for the face and body, pneumatic massage therapy, pneumatic photodynamic therapy, combined treatment with radiofrequency and ultrasound devices, and procedures in plastic surgery, dermatology, and spa therapy using LED, OLED, laser, laser diodes, light, photodynamic therapy methods, and photodynamic therapy devices.	Patent No. 10-1244434
16	A23L	KR	Health Functional Food Composition for Antioxidant and Immune Enhancement	Patent No. 10-2717772

# 19-2. Our Technology Patents

No	Invention Field	Applicable Region	Patent Title	Application Number
17	24-01	KR	LED Beauty Mask	Patent No. 30-1058009
18	24-01	KR	Transcranial Diagnostic Device with Built-in Electronic Stimulation Therapy	Patent No. 30-1157140
19	24-01	KR	Laser Fiber Probe for Photodynamic Therapy Procedures	Patent No. 30-1164145
20	24-02	KR	Bio Needle with Adjustable Depth	Patent No. 30-1157141
21	09-05	KR	Food Packaging Pouch	Patent No. 30-1164146
22	24-01	KR	Biomodulation Light Irradiation Device with Graduated Plate for Blood Circulation Promotion	Patent No. 30-1250477
23	28-03	KR	Needle Disk Roller	Patent No. 30-1056040
24	24-01	KR	Scalp Massager	Patent No. 30-1099999
25	24-01	KR	Laser Robot Micro-Photodynamic Therapy Device	Patent No. 30-1103612
26	24-02	KR	Handpiece for Automatic Separation and Injection of Immune Stem Cells via Monoclonal Antibody, Aptamer, and Exosome-based Immune-Neuro Modulation	Patent No. 30-1156293
27	24-01	KR	Automated Separation and Injection Device for Immune Stem Cells Using Monoclonal Antibody, Aptamer, and Exosome-based Immune-Neuro Modulation	Patent No. 30-1164144
28	24-02	KR	Biochip Implant	Patent No. 30-1066360
29	24-02	KR	Bioprinted Stent	Patent No. 30-1082784
30	24-01	KR	Detachable and Reassemblable Laser LED Light Therapy Device	Patent No. 30-1158231
31	24-01	KR	Medical Container	Patent No. 30-1113664

# 19-3. Our Technology Patents

No	Invention Field	Applicable Region	Patent Title	Application Number
32	24-02	KR	Medical Stem Cell Plastic Surgery Device	Patent No. 30-1156291 호
33	09-05	KR	Medical Tube Container	Patent No. 30-1113663 호
34	24-99	KR	Medical Patch	Patent No. 30-1173459
35	24-01	KR	Medical Handpiece	Patent No. 30-1123682
36	28-03	KR	Skin Beauty Massager	Patent No. 30-1066358
37	Class 24	KR	"Photodynamic and Photobiomodulation Therapy Device (PDT) for Systemic and Local Treatment of Metastatic, Recurrent, Blood-related, and Primary Cancers, as well as Skin Conditions and Other Immune-related Diseases, including COVID-19 Prevention and Recovery."	Patent No. 30-2023-0051409
38	11th Edition, Class 5	KR	Best Well Stem Cell (BWSC), BW	Patent No. 40-1952003
39	11th Edition, Class 10	KR	Best Well Biomodulation PBM, BW Biomodulation PBM	Patent No. 40-1986252
40	11th Edition, Class 5	KR	Best Well Bio P.B.S.C., B.W.B.	Patent No. 40-1986251
41	11th Edition, Class 10	KR	Best Well (BW)	Patent No. 40-1986253

# 20. Summary

# Pioneering the Future of Smart, Al-driven, Sustainable Healthcare

Biomodulation for a Smarter, Healthier Future: Leading the Fifth Industrial Revolution with Sustainable AI-Driven Healthcare

#### **Core Innovation Pillars**

- ✓ 1. Biomodulation Tech
   Core technology that induces self-healing through mitochondrial activation.
- 2. Smart Healthcare Integration
   Al-based personalized healthcare and disease diagnosis platform.
- ✓ 3. Eco-friendly Technology
   Eco-friendly smart photosensitizer and sustainable treatment system.

#### Market Size UP

- ✓ AI-Powered Diagnostics: Early disease detection, skin improvement, and chronic disease management
- ✓ **Global Expansion**: Expansion of global distribution in beauty devices, health supplements, and medical devices
- ✓ **Pharma Collaboration**: Partnership with pharmaceutical companies for NIR-based 5-ALA and new drug development

#### **Key Performance Targets (2025-2027)**

- ✓ Revenue Growth: Diversified revenue structure encompassing B2C, B2B, and B2G
- ✓ **IP-driven Product Launches**: Commercialization of photosensitizers and PBMT devices
- ✓ **Global Partnerships**: Expansion into global markets, including Europe, Southeast Asia, and the United States

#### Why Invest in BestWell Stemcell?

- ✓ Exclusive Patents & IP: Medical innovation through proprietary NIR-based 5-ALA technology and AI platform
- ✓ **Proven Market Traction**: Stable revenue growth at early stages with strong global expansion potential
- ✓ **Sustainable Long-term Vision**: Delivering sustainable healthcare solutions aligned with the Fifth Industrial Revolution