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10. Direction for Use (Special feature, Preview)
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Cellinbio Company Introduction

Biological System

To develop innovative bio-materials which is based on Biological Homeostasis

Drug  Functional Food  Cosmetics  Medical Device
Company Policy

Wisdom of Nature

Good History

3G

Good Material

Good Science

Good History, Good Science, Good Material

Essential Patents & Tech

Scientific R&D, Verification
History

2008
- Founded Cellinbio co., Ltd. Open R&D Lab

2009
- Launched ‘The Cellin EOP NanoSkin’ set
- Certified as Venture Business
- VITA-HA, Korean Patent application

2010
- Patent deposit of micro organism, CIB001
- Completion of semi GMP production facilities
- VITA-HA, PCT application

2011
- Launched ‘Defencia’ kimchi Bacteria
- Application of Proliphil, PCT & Korean
- Signed export & contract to USA market

2012
- Launched The Cellin Blue VITA-PEP system
- Patented VITA-HA product
- Signed export & contract to China market

2013
- INNOBIZ (Innovation Business Certification) Acquisition
- Anti-Ageing co., ltd (Japan) ADSC-CM cosmetic products Export contract
- Osteo-Induction compound (CIB09001S) Preclinical study
1. VITA-HA, material patent (Hyaluronic acid derivative effective against atopic dermatitis and method for manufacturing same, Patent NO. : 10-1122163).

2. VITA-HA PCT application (PCT/KR2010/006214)

3. Proliphil, material patent (Palmitoyl dipeptide that is glycylproline or hydroxyglycylproline conjugated palmitic acid and method for preparing the same, Patent NO. : 10-2011-0025280)

4. Proliphil PCT application (PCT/KR2011/008130)

5. GP-AA: CIB12002S, material patent (Derivatives Conjugated to Cell Penetrating Peptide and Uses Thereof, Patent NO. : 10-2012-0087705)


| 1 | Bio-material development use virus and antiatophic agent development by Vitamin C derivative (GRRC Catholic Univ. 2010~2013) |
| 2 | High-efficiency 3 dimensional Adipose derived stem cell culture system development (The Small & Medium Business Administration (SMBA) 2011, joint research with Kyung Hee Univ.) |
| 3 | Anti wrinkle functional organic derived depeptide material development & production (The Small & Medium Business Administration (SMBA) 2011) |
| 4 | Patent deposit of micro organism CIB001 (KCTC11717BP) and functional food commercialization (World institute of Kimchi, Defencia commercialized) |
| 5 | Development of BMP substitute organic-inorganic hybrid bone graft materials which has inductive bone bio active (Ministry of Health & Welfare 2011) |
| 6 | Application development of nature derived bone tissue rehabilitate active substance (Ministry of Knowledge Economy 2012~2015) |
| 7 | Development of cell-penetration peptide utilized Vitamin C derivative functional cosmetic raw materials (The Small & Medium Business Administration (SMBA) 2012) |
## Business & Bio Materials

<table>
<thead>
<tr>
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<th>Organic-inorganic hybrid bone graft material</th>
<th>Cholesterol Consumption</th>
<th>Lactic acid bacteria in dental caries prevention</th>
<th>Biomaterial in anti-obesity</th>
<th>Human origins in the anti-Inflammatory</th>
<th>Advanced biomaterials for arthritis treatment</th>
<th>Advanced biomaterials for anti-wrinkle, whitening</th>
<th>VITA-HA</th>
<th>PROLIPHIL</th>
<th>ADSC-CM</th>
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<td>Functional Food</td>
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<td>Cosmetics Material</td>
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</table>
Business Growthrate

Maximize R&D potentialities of Bio Venture company with reasonable & efficient commercialize of bio-material & product

Distribution Specialist
OEM Specialist
R&D Specialist

Navigating from Research to the Marketplace

Cellinbio Business Growthrate

<table>
<thead>
<tr>
<th>Year</th>
<th>Capital</th>
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<tr>
<td>2012</td>
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</table>
Beautiful Revolution
The Cellin Blue VITA-PEP System
What is The CELLIN BLUE VITA-PEP SYSTEM?
The Cellin

**Vita-Ha**
As a stable derivative of Vitamin C by combining with hyaluronic acid, it is delivered deep into the skin without losing its activity.

**Prolipil**
It activates intracellular enzyme that maintain a balance of new collagen synthesis and helps restore skin's resilience by stimulating collagen biosynthesis.

**ADSC-CM**
A natural cocktail containing growth factors, extracellular matrix components and physiological active substance.
Beautiful Revolution

The Cellin

VITA-HA

PROLIPHIL

ADSC-CM

VITA-PEP System

Anti Aging

Anti Wrinkle

Whitening

Regeneration
The Cellin Blue VITA-PEP I
(Meso Roller System)
(one month)
High EGF formula

01

1 step

The Cellin Blue VITA-PEP II
(Small Molecule Delivery system)
(one month)
High Peptide formula

02

2 step
Beautiful Revolution

The Cellin Blue VITA-PEP System
Next Generation Skin Agent, VITA-HA

VITA-HA has been completed its Korean patent application, PCT International application and owned the intellectual property by Cellinbio. co., Ltd. It has been listed as a new cosmetic material at ICID (International Cosmetic Ingredient Dictionary) as a INCI name of ascorbyl hyaluronate.

Patent Number (Korea)
: 10-1122163

Patent Application (USA)
: US-2012-0283438-A1

PCT Application
: PCT/KR2010/006214

INCI name
: Ascorbyl hyaluronate
Skin Trouble?

Changes in Plasma & Dermis

If you experience skin problems such as atopic dermatitis of the skin, vitamin C is down sharply.

R.O.S: Reactive Oxygen Species
When you have a skin trouble such as atopy, treat ascorbic acid to your skin helps to reduce R.O.S & IRON. As a result, your skin vitalizes again.
Ascorbyl Hyaluronate

Ascorbic acid
1. Control, Oxidation-Reduction system
2. Anti-inflammatory agent
3. Maintain Immunologic function

Hyaluronic acid
1. Natural moisturizing factor
2. Active Oxygen Removal
3. Prevent tissue damage from inflammatory response

Synergistic Effect
Ascorbyl Hyaluronate

Skin Tissue Reproduction & Collagen Biosynthesis

VITA-HA: Effects on wound healing

Collagen synthesis

Hydroxyproline (μg/mg wet tissue)

Control  | HA  | VITA-HA
Regenerated tissue

*  |  | ***
Skin Trouble Stabilization

VITA-HA: Effects on atopic dermatitis

- Vehicle
- DNCB
- Hyaluronate
- VITA-HA

* Lymphocyte Infiltration: +, Necrotic Foci: + (focal lymphocyte infiltration & necrosis)
Beautiful Revolution

The Cellin Blue VITA-PEP System
Palmitoyl Dipeptide-17

Anti-aging peptide derived from living body

As a major constituent of collagen, it activates intracellular enzyme that maintain a balance of new collagen synthesis and helps restore skin’s resilience by stimulating collagen biosynthesis.

Proliphil represents a new paradigm of biological homeostasis & biological system modeling as functional cosmetic material development.

Patent Application:
- 10-2011-0025280

PCT Application:
- PCT/KR2011/008130

INCI name:
- Palmitoyl Dipeptide-17
Anti-aging peptide derived from living body

Collagen occurs in many places throughout the body. Over 75% of the body composition is collagen proteins. Our personal outlook depends on the composition of face collagens too. Throughout the life time, collagen continues the circle of synthesis & degradation. When body is young and fresh, collagen synthesis & degradation balances to keep the healthy skin. When body becomes older than 40s, collagen synthesis function declines and skin ages by inner & outer reasons.

Proliphil re-activate collagen synthesis function in old skin cell, stimulates healthy and bouncy skin condition again.
Palmitoyl Dipeptide-17

Effects on wound healing

Tissue Penetration

![Graph showing effects on wound healing and tissue penetration with comparison between control and Proliphil treatment over 10 days.](image-url)
Beautiful Revolution
The Cellin Blue VITA-PEP System
**Natural Cocktail of Growth Factors**

HAS (hyaluronic acid synthase) down regulation has been accepted as most convincible physiologic model of photo aging and skin tissue damage. ADSC-CM is high value bio material that prevent skin aging, damage and regenerate skin tissue.

INCI name: Human Adipocyte Conditioned Media Extract

Adipose Derived Stem Cell
The Stem Cell Culture Media is allowed to be used as cosmetic material only if it has passed KFDA Guide Line for Stem cell culture media (2012, Korea)
Human Adipocyte Conditioned Media Extract

3D Stem Cell Culture

3 dimensional stem cell culture system for adipose derived stem cell culture media production as cosmetic bio material

Porous PLGA Microsphere with a diameter > 500 µm → Poly L-Ornithine-coated Microsphere → ADSC/PLGA Microsphere Complex → Adipose-derived Stem Cell → 3D Long-Term Culture in a HARV Bioreactor

Analysis of long term 3D culture of Adipose derived stem cell & conditioned media
Gravity-induced sedimentation ($V_s$) can be resolved into inwardly directed radial ($V_{sr}$) and tangential ($V_{st}$) components. There is also an outwardly directed particle velocity due to centrifugal force ($V_{cr}$). Tangential Coriolis-induced motion ($V_{ct}$) leads to spiraling of particles in the fluid stream.
HA Biosynthesis stimulation

- Elastin
- Collagen
- Hyaluronic Acid

Skin Delivery System

The First Success of Stem cell Stabilization

Design for Stem Cell

- Phospholipid, Ceramide, Cholesterol
- Water encapsulation. Encapsulation of 70% Water-soluble material (about 50nm)
- Optimum Skin Structure and Composition Similarity. Being easy to pass skin Barrier

Human Adipocyte Conditioned Media Extract
Conditioned medium from Adipose Derived Stem Cells (ADSC-CM) Stimulates both collagen synthesis and migration of fibroblasts and accelerates wound healing of skin.
Human Adipocyte Conditioned Media Extract

Effectiveness

Jung H et al., *cytotechnology* (2011) 63, 57-66


Before

After
How The Cellin BLUE VITA-PEP SYSTEM Works?
The CELLIN BLUE VITA-PEP SYSTEM Special Feature

**TRADITIONAL APPLICATION**
- **UV Rays**
- **Toxins**

**Microneedle Therapy**
- **Microneedle Channels**

**Damaged skin condition**
- The penetration channels through epidermis layer
- Through the micro channels, the active ingredients with liposome infiltrate deeper skin layers.
- The micro channels are closed within minutes and cell membrane and DNA starts to regenerate.

**Conventional cosmetics**
- Normal cosmetics only target the surface of the skin, 99% have no effect.
  - Molecules are too big to penetrate.
- Only less than 0.3% effective result.

**Personal treatments**
- Through the micro channels, the active ingredients with liposome infiltrate deeper skin layers.
- The micro channels are closed within minutes and cell membrane and DNA starts to regenerate.
THE CELLIN BLUE VITA-PEP I
---- MRS system
Meso Roller System
Reserve Skin Cell fundamental factors
(One Month Use)

THE CELLIN BLUE VITA-PEP II
---- SMD system
Small Molecules Delivery System
Re-build skin cell structure
(One Month Use)
The Cellin
Blue Vita pep Eye-Line
(NET. : 5g X 4ea)

The Cellin
Blue Vita pep V-Line
(NET. : 8g X 4ea)

The Cellin
Blue Vita pep Mask
(NET. : 25g X 4ea)
The CELLIN BLUE VITA-PEP SYSTEM Preview
THE CELLIN BLUE VITA-PEP I, II

PREVIEW
Result after Use

Before

After

Right Eye Rims Wrinkle
Result after Use

Before

After

Front Head Wrinkle
NEW Paradigm of Cosmetics

BIO - COSMETICAL
CellinBio Global Network

- NRCommunication
- Kolmar KOREA
- 伊美娜
- M beauty
- Harbin Chining
- Aging design
- IDNet
- Suite in style
- NRC USA

Bio-Material R&D

Marketing Local/Oversea

OEM Domestic/Export
4G Company Policy

Wisdom of Nature

Good History

Good Partner

Win-Win Partnership

4G

Good Science

Scientific R&D, Verification

Good Material

Original Patents & Tech

Good History, Good Science, Good Material
World Class Leading Company in Bio-Material R&D Technology

Good Safety

Good Control

Good Application

Good Price

Good Eco

We provides original bio-materials to bring us a Healthier & Happier life

Good History, Good Science, Good Material