Benthos Bioscience Introduction

Oct. 2017
Contents

1. Corporate Profile
2. Resources
3. Technological Achievements
4. Strategic Planning
5. Product Overview
6. Management Team
Corporate Profile

Mission

Through cutting-edge scientific innovations Benthos harvests from unaltered marine ecosystems and presents world-class sea cucumber, healthcare and medical products to improve the health and quality of life for humankind.

Vision

Global Sea Cucumber Biological and Medicinal Expert.

Behaviors

Teamwork, Activeness, Harmony, Integrity, Tenacity, Inclusiveness.
Corporate History

1. Focus on R&D (2005-2014)
   - **2005**: Coco Chavita Laboratory, Mexico was established
   - **2011**: Became member of Mexican/EU Biotech Cooperation Delegation
   - **2014**: Successful development of new technology in sea cucumber genetic engineering
   - **2008~2014**: Successful Extraction/Separation of highly active sea cucumber collagen, highly purified Frondoside A, STS-12A with uric acid reduction function, NP-14D - small molecule polypeptide that stimulates Gonadotropin-Releasing Hormone, and NP-82B neuropeptide with cell regeneration function etc.

   - **2015**: Benthos Laboratory, Tahiti was established to develop unique sea cucumber seedling technology
   - **2015**: Coco Chavita Laboratory, Mexico was awarded “National Enterprise Institute”
   - **2016**: Obtained exclusive fishing rights of ninety islands for 99 years in South Pacific Ocean

3. Commercial Operation (2017-)
   - **2017**: Launched Benthos Institute, which included four laboratories in Los Angeles (U.S), Mazatlan (Mexico), Papeete (Tahiti) and Shenzhen (China)
   - **2017**: Benthos, Hong Kong and Benthos, Shenzhen, dual headquarters in China were established. Global commercial operation officially began
Natural Resources

Fishing Rights

- Exclusive fishing rights of ninety islands for 99 years in South Pacific Ocean.

Moringa

- With 20 square kilometers of land in Mexico, it is mainly used to grow Moringa to extract natural vitamins and is used as a raw material for the company's main products.
R&D Team

Benthos Research Institute (with four laboratories and the world's most cutting-edge R&D team)

- The Coco Chavita laboratory in Mexico was founded in June 2005. Dr. Simental, a Ph.D graduate MIT is both the founder and a key member of the R&D team.

- Coco Chavita Lab is committed to technological innovation to promote synergies and sustainable development of fisheries, aquaculture, renewable energy, biotechnology and life sciences. Focusing on the extraction of the active ingredients of marine life, applied to the field of medicine and cosmetics. At present, there are 13 kinds of scientific research achievements, leading the world in marine biology research.

- Some of the finished products have been approved by the Food and Drug Administration (FDA) in the US and are highly rated by corporations such as Entrepreneurship Ventures inc. and other agencies.

- In 2017, the Benthos institute was established to expand and integrate the R&D team, setting up four laboratories in Los Angeles, Mexico City, Tahiti and Shenzhen.

**Technical scope**

<table>
<thead>
<tr>
<th>Serial number</th>
<th>Technical term</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Separation and extraction of high quality variable sea cucumber collagen</td>
</tr>
<tr>
<td>2</td>
<td>Separation and extraction of high purity Frondoiside A (raw material for anticancer drugs)</td>
</tr>
<tr>
<td>3</td>
<td>Separation and extraction of Sts-12a (uric acid function)</td>
</tr>
<tr>
<td>4</td>
<td>Separation and purification of polypeptides from sea cucumbers</td>
</tr>
<tr>
<td>5</td>
<td>Separation and purification of np-82b neuropeptide (immunomodulation and cellular regeneration)</td>
</tr>
<tr>
<td>6</td>
<td>Separation and purification of np-14d active peptide (improved sexual function)</td>
</tr>
<tr>
<td>7</td>
<td>Separation and extraction of antithrombotic polysaccharides</td>
</tr>
<tr>
<td>8</td>
<td>Preparation of lms-12a (HPV prevention and treatment)</td>
</tr>
<tr>
<td>9</td>
<td>Preparation of 3D printed sea cucumber collagen wound dressing</td>
</tr>
<tr>
<td>10</td>
<td>Separation and extraction of triterpenoid saponins (bactericidal and anti-inflammatory functions) of sea cucumber</td>
</tr>
<tr>
<td>11</td>
<td>Separation and purification of sea cucumber small molecule polypeptide (analgesic function)</td>
</tr>
<tr>
<td>12</td>
<td>Separation and purification of sea cucumber small molecule polypeptide (enhanced myocardial systolic function)</td>
</tr>
<tr>
<td>13</td>
<td>Separation and purification of the polypeptide (assisted decreasing glycemic function) of sea cucumber</td>
</tr>
</tbody>
</table>
Research Achievements

The corporation has completed the industrialization process of the extraction and separation of Marine echinodermata, can achieve large-scale and standardized production, and owns a number of intellectual property rights of world-leading technologies.

A brief introduction to the cutting-edge technology

1. **Extraction and separation process of sea cucumber active ingredients**
   - Using multidisciplinary cross methods, and dozens of active substances with different biological activities and pharmacological properties were extracted from sea cucumber. This technology has the leading position worldwide, and the whole technology and product can apply for dozens of PCT patents.

2. **New diuretic acid natural small molecule compound**
   - The uric acid was decomposed into a soluble high-soluble allantoin as a mechanism. Pure natural extraction, obvious effects and small side effects. The formulation has been developed. It can be sold as health care product first, then develop into natural medicine.

3. **New sea cucumber polypeptide**
   - A new polypeptide that can improve erectile strength, has a product base that develops into a new generation of pure natural ED therapeutics, and the special diet and health products already have a wide market space.

4. **The highly active and mutable collagen**
   - Compared with the current kind of products, the highly active and mutable collagen extracted from sea cucumber has the advantages of higher purity, more complete structure and activity, also in the application development of wound repair, artificial organ and cell scaffold.

5. **Raw material for cancer treatment**
   - Triterpenoid saponins, which were extracted from sea cucumber and were used to promote apoptosis and cure cancer, has a high fatality rate for breast cancer, melanoma, liver cancer and lung cancer. It is one of two companies in the world that have mastered the technology and more advanced in purity (99.4 per cent).

6. **Total gene sequencing of more than 1000 species of sea cucumber**
   - The team tested more than 1,000 different sea cucumbers on earth, preserved the specimens and sequenced the whole genome. The team has accumulated a wealth of experience and data for the earth genome project.
Strategy

Benthos Bioscience Limited

Mission: Through cutting-edge scientific innovations Benthos harvests from unaltered marine ecosystems, presents world-class sea cucumber foods, healthcare products and medical technologies to improve health and quality of life for humankind.

Vision: Global Sea Cucumber Biological and Medicinal Expert.

The Dual-Wheel Drive Strategy

Immaculate Marine Resources

Brand: Tahiti

1. Sea Food
   - Dry sea cucumber
   - Ready-to-eat sea cucumber
   - Sea cucumber capsule
   - Sea cucumber powder
   - Sea cucumber wine

2. Biological Material
   - High purity anticancer drug
     It has inhibitory effect on a variety of tumors, with a purity of 99.4%.
   - Biological collagen material
     It is characterized by high purity, biological structure and activity, small immunogenicity and high variability.

Cutting-edge Scientific Innovations

Brand: Benthos

3. Healthcare Products
   - Enhance sexual potency
   - Prevent Alzheimer’s
   - Prostate care
   - Drop uric acid
   - Sleep improvement
   - Immunity enhancement
   - Gastrointestinal Improvement
   - Liver protection
   - Reducing blood lipid
   - Assistant treating, hypertension
   - Decrease blood glucose

4. Medical Treatment
   - Medical instrument
     - Gel for removing scar
     - Hand sanitizer
     - Wound dressing
     - Artificial organs
   - Medicines
     - To enhance sex
     - To drop uric acid
     - For Cancer treatment
     - To Strengthen myocardial contractile force
Industrial Chain

Focus on natural resources, R&D and brand marketing, to ensure the corporation can be run smoothly with very few hard assets.

Value Added
High

- R&D
- Seedling
- Fishing

Low

Upstream
Midstream
Downstream

Business Process

- Service
- Marketing
- Channel
- Branding

Operation Cooperation
Focusing on human health, with the world's leading scientific innovations and immaculate marine resources, gradually becomes a practitioner of human health care, health promotion and health reinvention.


- Focusing on high-quality natural Sea Food and Biological Raw Materials business, from the beginning of the industrial chain to protect consumers' healthy eating and living, also research institutions' material demand.

**Step 2. Health Promotion (2020-2024)**

- Based on healthy sea food and biological materials, we will vigorously promote the business of high-efficiency Health Care Products, linking the technology, capital and business. Improve human health level and quality of lives all over the world.

**Step 3. Health Reinvention (2025- --)**

- After years of preparation, the Medical and Pharmaceutical Business will become the priority, and the goal is to become a global leader in this field. Based on the strong R&D team, we are making contributions to the treatment of human diseases, prolonging of life expectancies and life exploration.

Focusing on human health, with the world's leading scientific innovations and immaculate marine resources, gradually becomes a practitioner of human health care, health promotion and health reinvention.
## About Us

### Management Leader
- **Danny Qiu**: Graduated from the University of California in 1998. In 2000, Qiu acquired and restructured MASEP Medical Science & Technological Development (Shenzhen) Co.,Ltd. MASEP owns independent intellectual property rights including the newest generation of “Gamma Knife” Since 2000, he invested and managed more than 60 Gamma Knife treatment research centers globally. From 2001 to 2013, he has written and published several academic papers about Gamma Knife technology. Qiu is a guest lecturer in Guangxi Medical University.
- **Halen Wei**: MFA from Jinan University, CPA accredited by CICPA. Wei executives who has served one well-known state-owned enterprise for 12 years, with finance, procurement, human, information, and comprehensive management work experience as well as acumen in business operations and M&A integration.

### Technical Leader
- **Dr. Delia Rosalba Simental Crespo**: Biotechnology PhD (MIT Department of Biological Engineering). Member of the MIT Energy Club community, a club that promotes dissemination and creation of knowledge and technology in the energy industry. She has a Master’s degree in Renewable Energy Management (INIEC Spain). Dr. Simental is a member of the national advisory council (SEMARNAT) for the Mexican sea cucumber management program and a member of the Mexican Researchers National System. She is a candidate for the “Fortune”/the state department’s global women’s mentoring partnership. Dr. Simental specializes in managing complex interdisciplinary innovation and sustainable development projects in Marine biotechnology field, finding novel bioactive compounds for Cancer treatment, antibiotics, Guided Tissue Regeneration biofilms, among others.
- **Dr. Chen Mai**: M.D, postdoctoral fellow at Thomas Jefferson University, former associate professor of cardiovascular medicine at Xijing hospital of the fourth military medical university, associate chief physician, professor for Master candidates, national natural science fund assessment expert, and professor of special employment in international heart failure college. Long-term focus on the interventional treatment of complex coronary heart disease and treatment of heart failure and related drug development, with high attainments in myocardial cell necrosis and protection. He has given keynote lectures in the domestic and international important academic conference for many times. Host 4 national natural science funds and participate in 4 funds. He has published more than 30 articles in domestic and foreign magazines, edited and participated in many books.

### Marketing Leader
- **Zhou Renhai**: Male, 46 years old, master of a famous medical university in China, has worked for more than 10 years as a general manager of a state-owned pharmaceutical platform; Later, served as sales director in a national pharmaceutical company, OTC products sales specialist.
Thanks!