What if a comfortable stretch bodysuit could amplify your workout to help you build muscle and reduce fat 2-3 times faster and boost longevity at the same time?

Introducing ...

BODSTIM

Bioelectric BodySuit

by

BioLeonhardt Whole Body



BOD^{*}STIM

Wellness Accelerated

- Bioelectric bodysuit designed to boost the effects of exercise by bioelectrically stimulating muscle contractions
- The only wearable with stimulation of our patented Klotho and Follistatin protein expressions — important in muscle building and longevity
- A 40-minute BodStim workout is equivalent in benefits to 2-3 hours of regular exercise
- Multiple configurations for personal and multi-person use in MedSpas and training environments.



ELECTRODES, CABLES, AND STIMULATOR



ELECTRODES

10 pairs of flexible and interchangeable electrodes are strategically-located throughout the comfortable stretch bodysuit

CABLES

Electrodes are connected by wires wrapped in thin protective cables integrated into the comfortable stretch fabric of the bodysuit – to keep them in place and avoid direct contact with the wearer

STIMULATOR

A small pre-programmed stimulator plugs into the fitted connector pocket to hold it firmly in place. Charges with any mini-USB connector.



BOD^{*}STIM



KLOTHO AND FOLLISTATIN

The only bioelectric wearable with our patented signals for Klotho and Follistatin

Klotho

Perhaps the most powerful anti-aging agent ever discovered – more than 3,000 studies demonstrate Klotho's importance in human health and its potential to mitigate loss of physiological function and to improve outcomes in aging-related diseases.

Follistatin

Known for muscle building and repair, recent studies explore the potential of Follistatin as a therapeutic agent in muscle diseases such as Muscular Dystrophy, and age-related muscle-wasting.

Klotho lab testing services for pre- and post-Bodstim use are in pilot testing mode and will be launched in conjunction with BodStim

BODSTIM

For Personal Use

- A slim profile, two-piece bodysuit like a cycling suit
- Electrodes are placed at strategic locations throughout the suit to send muscle contraction and bioelectric signals
- Cables are integrated into the bodysuit's comfortable stretch fabric and do not touch the skin
- Stimulator plugs into a snug connector pocket on the pants
- Programs are pre-loaded to run at the touch of a button
- Multiple sizes available XXS to XXL





BODSTIM FIT

- Designed to tone and reshape the body
- Yoga pants and tops for personal use
- Waist, arm, and leg wraps for use in MedSpas (over undergarment)
- Simultaneously works up to 10 muscle groups: extensors, gluteals, abductors, hamstrings, abdominals, obliques, quadriceps, calves, biceps, and triceps.



BOD^{*}STIM



BODSTIM PRO

For Use By Multiple Clients

- For use by multiple people in Training Environments and Wellness Spas Sanitized before each use
- Vest and trousers available in a wide range of sizes to fit multiple body shapes – XXS to XXL
- Electrode placement adapted to each client's body shape
- Portable stimulator plugs into connector pocket
- Wireless program is controlled by trainer via mobile app





MULTIPLE APPLICATIONS



PERFORMANCE

BodStim increases deep muscle contractions, resistance, and circulation to augment exercise. A 40-minute BodStim workout provides the same muscle building and metabolism boost as 2 - 3 hours of regular exercise. Protein expressions for Klotho and Follistatin increase muscle building and longevity.



AESTHETICS

Designed to accelerate muscle tone and increase metabolism to promote fat loss and improve blood flow. Exercise along with BodStim reduces stress and promotes a feeling of well-being and relaxation.





HEALING

Bodstim is FDA-cleared for use on healthy muscle tissue. Numerous studies document that bioelectric stimulation and specific protein expressions can be useful in reducing inflammation and repairing and regenerating damaged muscle tissue. The company is pursuing healing applications for the technology.

FUTURE BENEFITS

Additional signals for instant download potentially include:

- Muscle building/recovery and nerve regeneration
 Protein expressions: S100a, IGF1, and Muscle Lim Protein (MLP)
- Stem cell homing, improved circulation and exercise recovery
 Protein expressions: SDF1, PDGF, COL17A1, VEGF, eNOS, and HIF1a
- Improved elasticity of skin and tendons
 Protein expressions: Tropoelastin and COL17A1
- Anti-aging and muscle regeneration

Protein expressions: Sirtuin (1-6) and NANOG

Signals to improve damaged nerve connections, gut microbiota function, and increase serotonin to improve mood and reduce the risk of dementia, memory-loss, depression, and addiction, are also being studied.





PRE-CLINICAL DATA

ELASTIN STIMULATION

KLOTHO STIMULATION

17% increase in elastin in tests at our UC Irvine lab. Increases elasticity of tissues, skin, arteries, heart, and heart valves – has multiple benefits. A clinical study demonstrated an increase of up to a 150% in circulating Klotho with stimulation twice a week for 45 - 60 minutes.



PUBLICATIONS

PROCEEDING OF THE NATIONAL ACADEMY OF SCIENCE

The Rise of Bioelectric Medicine Sparks Interest Among Researchers, Patients, and Industry. Hundreds of clinical trials are now underway to investigate how harnessing the body's peripheral wiring might help in the treatment of acute and chronic disease – the results so far appear promising. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6900593/

SKELETAL MUSCLE JOURNAL

Klotho expression is a prerequisite for proper muscle stem cell function and regeneration of skeletal muscle. https://skeletalmusclejournal.biomedcentral.com/articles/1 0.1186/s13395-018-0166-x

INTERNATIONAL JOURNAL OF SPORTS AND EXERCISE MEDICINE

EMS activation significantly increased the metabolic and cardiorespiratory responses in men and women at rest and walking at steady-state (50% VO₂ max).

https://pdfs.semanticscholar.org/ec7c/281707a2136458c 471f6d1ee96adad0431a8.pdf

INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH

Neuromuscular electrical stimulation (NMES) combined with low-intensity exercise can be more efficient than lowintensity exercise only in terms of delaying the loss of muscle mass in the elderly. https://pubmed.ncbi.nlm.nih.gov/33802260/

JOURNAL OF CIRCULATION

Bioelectric stimulation offers a simple and practical method of therapeutic angiogenesis.

https://www.ahajournals.org/doi/10.1161/01.CIR.99.20.2 614



CANADIAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY

Neuromuscular electrical stimulation but not photo-biomodulation therapy improves cardiovascular parameters of rats with heart failure https://tspace.library.utoronto.ca/handle/1807/106055

Find more studies at www.bodstim.com

WELLNESS SPENDING BY CATEGOR

- \$1.5 trillion a year spent on consumer health and wellness products and services
- CAGR of 5 10%
- Consumers care deeply about wellness and interest is growing
- A survey of 7,500 consumers in six countries reported:
- 79% believe wellness is important
- 42% consider it top priority
- A substantial increase in prioritizing wellness over the past 2 – 3 years





Source: McKinsey & Company

GO TO MARKET PLAN

Lionheart Health Direct to Consumer Sales

Online Store promoted through digital advertising and social media Lionheart Health MedSpa/ Sports Medicine Clinic Sales

Sales Representatives in the US, Canada, Mexico, South America, Europe, and Australia

BOD'STIM



SUMMARY

BodStim is Designed to:

- Promote overall wellness and longevity
- Stimulate rapid muscle contractions to build muscle
- Augment exercise benefits a 40-minute BodStim workout is equal to 2-3 hours of regular exercise
- Increase metabolism to promote fat loss for 48-72
- Improve circulation and eliminate toxins

The only wearable that stimulates Klotho – perhaps the most powerful anti-aging program ever discovered





BOD*STIM TEAM



Howard Leonhardt Founder and CEO



Leslie Miller, MD Chief Medical Officer



Henk Abbink VP International



Jorge Genovese, MD, PhD VP Bioelectric Regeneration Research



Jon Dillon Regional Director U.S. Sales



Sejal Chaudhari, MS R & D Lab Director



Cristiane Carboni, MS, PT Chief Research Coordinator Brazil



Kelsie Leonhardt, MA Chief Neuroscientist



Brian Hardy Director of Marketing



Lynn Hammerschmidt, MA Chief Marketing Advisor

LEONHARDT'S LAUNCHPADS

BodStim, by BioLeonhardt Whole Body, is a Leonhardt Ventures, LLC; asset currently incubating in the Leonhardt's Launchpads incubator. The company's research and development laboratories are located at University Lab Partners at the UCI Research Park in Irvine, CA. The parent company, Leonhardt Ventures has over 700 patent claims issued, optioned, licensed, or are in process related to organ regeneration and recovery: https://patents.justia.com/inventor/howard-j-leonhardt.

BodStim is scheduled to graduate from BioLeonhardt Whole Body as a stand-alone start-up in 1Q 2023.

For more information visit:

www.bodstim.com www.leonhardtventures.com



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