



Revolutionizing Healthcare with Hydrogen Therapy

Healing Naturally

Aging Gracefully



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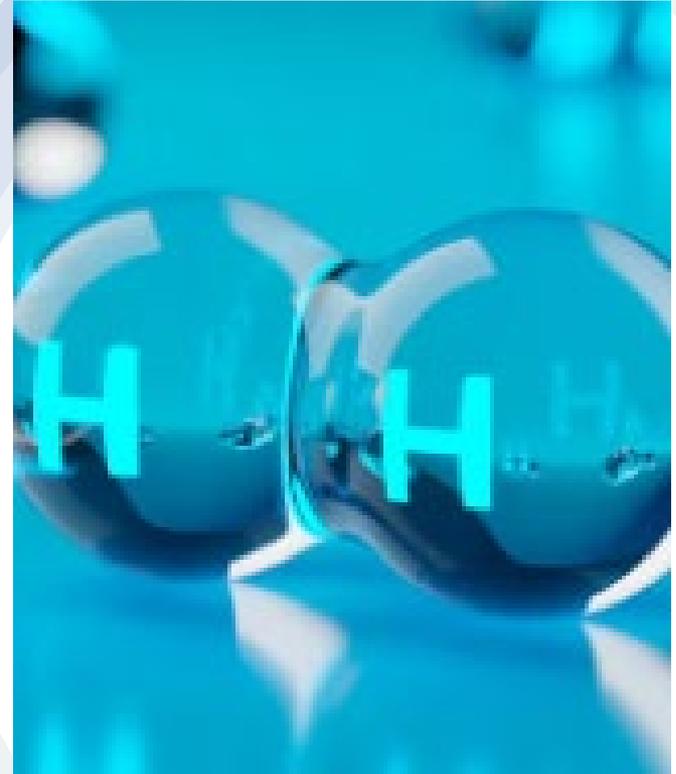
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Discover Molecular Hydrogen

- Molecular hydrogen is an antioxidant
- Molecular hydrogen penetrates cell membrane and effectively reduce free radicals
- Anti-inflammation
- **FDA GRAS (Generally Regarded As Safe)**
Hydreliox gas mixture for deep sea diving
(49% hydrogen, 50.2% helium, and 0.8% oxygen)



Power of Hydrogen Therapy

Targeted areas:

- **Healthy Aging**
- **Neurodegenerative Disorders- Parkinson's, Alzheimer's**
- **Diabetes - Type I and Type II**
- Rheumatoid Arthritis
- Muscle fatigue
- COVID/Virus infection
- Chronic Kidney Disease



The H2Bio Products

Products

- **SaaS AI Model: Subscription personalized for improvement of healthy life, longevity and chronic diseases.**
- **H2E-xxx: portable PEM Hydrogen inhalation device**
 - Portable, quiet and easy to use
 - High-efficiency hydrogen production
 - Data-link for real-time monitoring
 - IOT capability
 - Low-cost operation



H2E-100: Introduced in 2020 for case studies



Safety

H2Bio Products:

- **No flammability issue:** Hydrogen's flammability ranges between 4% and 75% in air. H2Bio's products are designed to be less than 4% or at 100% - **outside Hydrogen's flammability range.**
- **No Combustion issue:** H2Bio products separate the generated H2 and O2. Mixed pure H2 and O2 will cause combustion.
- **No auto-ignition issue:** The auto-ignition temperature of H2 and natural gas are similar (over 1000F/538C), much higher than that of gasoline vapor.
- **SGS Volatile Organic Compound (VOC):** Test reports available
 - Mask industry only requires 27 items, H2Bio did all 59 items.
 - Regulation requires to pass in ppm (parts per million) level. H2Bio results are 1000 times more stringent than the required at ppb (parts per billion) level.
- **Hydrogen Purity 99.99x%**
- **More than a hundred case-studies over past 3 years and no side-effects**

Hydrogen inhaled for Deep Sea Diving since 1941

- In 1941, it was shown that breathing a 97% hydrogen and 3% oxygen mixture at 10 atm was well tolerated and safe. This resulted in the use of hydrogen in deep sea diving to prevent decompression sickness in 1943 by the Swedish Royal Navy and has continued to be used since.
- **Hydroliox:** 49% Hydrogen, 50.2% Helium, 0.8% Oxygen, diving below 130 meters

Go To Market Strategy

- Collaborate with Functional Medicine Doctors: identify and address the root cause of disease.
 - **40,000** doctors/clinics, grown significantly in recent years.

Naturopathic Doctors:
-**10,000** doctors/clinics.

Goal: 25,000 units per year, SaaS and Maintenance total revenue to reach \$100M after FDA clearances.
- Channels
 - Hospitals, clinics.
 - Aging and Disability Service Providers – AAA, ...
 - Online sale
 - Partnership with CGM (Continuous Glucose Monitor) vendors for bundle sales.
- Reimbursement strategy – Develop a plan to secure the coverage from Insurance or Government supported Aging and Disability Funds.
 - California Depart. Of Aging (CDA) spent \$9.5B on the aging population, data released from Kim McCoy Wade, Senior Advisor on Aging, Disability & Alzheimer's Office of California
- Patient Awareness Campaign:
 - Raise awareness among customers about conditions the product addresses and how the product can improve their life!
 - Consider collaborating with advocacy groups, i.e. Parkinson's Association and Diabetes Association.

Q&A

1. How do you plan to win the existing competitions in the market?

- H2Bio focuses on US Market and the patents protect its dominance in the US market. The PEM technology is by far the best and safest approach. H2Bio owns the patents in US.
- The FDA clearance of H2Bio products will deter most competitions.

2. Why FDA?

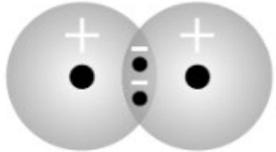
- The public in US trusts FDA. In order to make H2 device available to the general market. We need FDA's support. This is the way to gain the trust of the general population.
- US hospitals, doctors and insurance won't work with H2Bio unless it is guarded by FDA.

The aging and chronic disease market in US is a huge one. Our vision is that every household will have at least one hydrogen device. US alone has ~130 million households. 1% of the market will easily push H2Bio to a \$Billion company.

Exit Strategy

- **Initial Public Offering (IPO)**
 - 25,000 units / year through Doctors, Hospitals, Senior centers & Online sales...
 - Maintenance, consumables.
 - SaaS Subscriptions
 - Total Revenue > \$100M in 6 year
- **Open to Merger & Acquisition**

H2Bio Milestones



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Patents

- US Patent, Issued 2020
- US Patent, Issued 2022
- Taiwan Patent, Issued 2023
- European Application, Being Examined.

NCKU School of Medicine Partnership

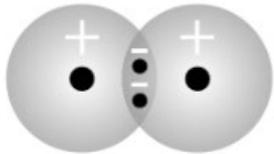
- 2024: H2Bio LAB and Office space allocated in National Cheng Kung University School of Medicine in Taiwan
- Clinical trials and projects to be set up between H2Bio and NCKU, School of Medicine for FDA process.

FDA Plan

Plan 1 :

Claims : Reduce free radicals and inflammation

- 2 Years to H2M-100 cleared.
- FDA 513(g), De Novo, Medical Device
- National Cheng Kung University Clinical Trial
- Continue to finish the required process for H2Bio's product series.



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Plan 2: (TBD)

Claims : Alternative Treatment for Parkinson's and Diabetes

- 2 years
- Medical Device Class II
- Contract Research Organization (CRO) to be hired
- CRO to work with NCKU and other US site for clinical trials.
- **Target to work with existing medical treatments.**

Execution Plan Use of Funds: USD\$1.6M

USD \$1.6M Seed Financing will be used for Staffing, FDA applications, Hardware and Software development over the next 2 years.

Task	\$USD (in Millions)
1. Personnel Staffing	0.3
2. FDA Process	0.3
3. NCKU Trials and Lab Setup	0.2
4. H2E units for Sales and Trials	0.2
5. Engineering Modifications for FDA	0.2
6. Legal and IP Filing	0.1
7. Office Lease, Supplies, Travel and Reserve	0.2
8. Misc. (Travel, Office Supply, ...)	0.1
Total	1.6

The Team



Philip Hsueh
Founder & CEO
University of Maryland, EE MS
25+ years in Engineering/Management
Inventor with patents



Raymond Wu
Co-Founder
Omnivision co-founder
Neuron Basic, CEO
Patent co-owner



Marilyn Tan
Stanford Med.
Medical Advisor



Ming-Je Tang
NCKU
School of Medicine
Medical Advisor



Kevin Mai
Engineering



Don Ward
Engineering

Alzheimer's Hand Shaking

Age: 76
Gender: M
Race: Asian



20200913 –
Week3

[Click to view](#)



20200925 –
Week4

[Click to view](#)



20210131 –
Week22

[Click to view](#)

Hydrogen Therapy

- Week 1 : Uncontrolled hand trembling**
- Week 2 : Uncontrolled hand trembling**

- Week 3 : Trembling stopped when focused his gaze on food, came back as he looked away.**

- Week 4 : Tremors fully stopped**
-

- Week 22: The stability was maintained weeks later.**

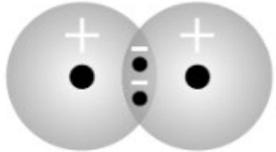
Testimonial: Type I Diabetes

□



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Publication and Research



Hydrogen Publications:

- **Diabetes:**

<http://www.ncbi.nlm.nih.gov/pubmed/19083400>

- **Parkinson's:**

<https://www.hindawi.com/journals/omcl/2012/353152/>

- **Rheumatoid Arthritis:**

<http://www.ncbi.nlm.nih.gov/pubmed/23859555>

- **Kidney:**

<https://karger.com/kdd/article/8/2/126/824533/Hydrogen-A-Novel-Treatment-Strategy-in-Kidney>

- **Preventive & Therapeutic applications:**

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3257754>

- **H2 as an emerging therapeutic medical gas for neurodegenerative and other diseases**

<https://www.hindawi.com/journals/omcl/2012/353152/>

Thank You!

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