

19 JULY 2023

# Vielight News

Accelerating photobiomodulation.



## INTRODUCING THE VIE-AI LAB.

At the Vielight AI Brain Stimulation Laboratory (“Vie-AI Lab”), we are conducting IRB-approved studies to explore the effects of photobiomodulation on neural activity via EEG

As a science-driven company, we followed a research-first path since 2017 to better understand the complex human brain before developing software framework. We have found promising results through our neuromodulation research, which builds on published research with our Neuro technology.

We now have a roadmap to investigate the optimization of brain functions by integrating artificial intelligence (AI) into the Vielight photobiomodulation (PBM) ecosystem and hope to share our findings with the rest of the world.

## Newsletter Highlights

Vie-AI Lab

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Vielight AI Patent

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Patent Summary

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Our history with neuromodulation

  
VIELIGHT

## AI-PBM PATENT GRANTED



Dr Lew Lim  
Vielight CEO and Founder

Our founder, Dr. Lew Lim, is a former Silicon Valley electrical engineer, entrepreneur and inventor of modern brain photobiomodulation technology.

Besides being the inventor of home-use brain photobiomodulation technology in 2014, he was the first to invent the concept of an AI-based closed loop to optimize photobiomodulation parameters (PBM) in real time.

In 2018, he filed his utility patent, "System and Method for Automated Personalized Brain Modulation with Photobiomodulation" with the United States Patent Office (USPTO, # US 11,633,621B2) and other countries.

For his invention, **the USPTO granted the AI-PBM patent to Dr Lew Lim, on April 25, 2023**, followed by other countries.

## VIELIGHT AI PATENT SUMMARY

The patent works in combination with a diagnostic tool (such as EEG, qEEG, HRV) to modulate brain functions intelligently, automatically, and unrestricted by geographical distances in real time.



### Diagnostic Tool

qEEG, EEG, HRV etc.



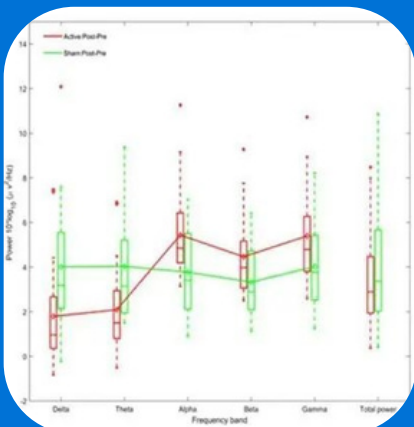
### AI Processing

Intelligent, automated processing



### Brain Photobiomodulation

Real time parameters adjustments



## OUR HISTORY WITH NEUROMODULATION

We had the honor of pioneering and publishing the world's first study on neuromodulation via photobiomodulation.

Our Vielight Neuro is the only commercial brain photobiomodulation device supported by published peer-reviewed results for neuromodulation.

Study: <https://www.nature.com/articles/s41598-019-42693-x.epdf>