

# Vielight News

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"You have to find what sparks a light in you so that you in your own way can illuminate the world."

- **Oprah Winfrey**, talk show host, actress and philanthropist

## Australian study focuses on PBM's potential for Parkinson's

*Multi-city trials will investigate influence of near-infrared light on dreaded neuro condition*

**R**ECRUITMENT begins this month for a new clinical trial in Australia aimed at investigating the potential of photobiomodulation (PBM) involving the Neuro RX Gamma in influencing the symptoms of Parkinson's.

According to the investigators, the study seeks to evaluate the effect of slowly increasing doses of PBM on the signs and symptoms of Parkinson's Disease. Ethics approvals for the study have been obtained for three Australian sites - Brisbane, Adelaide and Sydney. The investigators will involve different protocols and application sites to test the mechanism of PBM.

Parkinson's Disease is a degenerative condition of the brain that affects movement and balance, typically in those of middle to late ages.

The trials will be conducted by Dr. Liisa Laakso, Senior Allied Health Research Fellow at

Mater Medical Research Institute Limited (South Brisbane), Dr. Joanne Bullock-Saxton from Active Rehabilitation Physiotherapy (Brisbane) and Dr. Alex Lehn, Clinical Neurologist at Mater Hospital (Brisbane).

Speaking about the trials, Dr. Laakso said, "The primary mechanism of the action of PBM involves the stimulation of mitochondria (the cell's power house) by the absorption of photons in cytochrome C oxidase, a light acceptor in cells. The activation of mitochondria results in an increase in the production of a fuel source in cells called adenosine triphosphate or ATP, leading to reduced oxidative (cell) stress, anti-inflammatory effects, improved cellular energy, increased synthesis (production) of enzymes, and increased focal cerebral blood flow."

Although the cause of Parkinson's Disease is unclear, some believe that it is associated with



**Dr. Liisa Laakso**

dysfunction of the cell mitochondria with related harmful knock-on effects that could be influenced by the application of PBM. "Although no one has yet proven this effect in PD, we believe this is one reason why we should investigate the effect of PBM in conditions that have a mitochondrial dysfunction," she added.

The clinical trial is a multi-dis-

ciplinary collaboration of physiotherapists, scientists, clinical neurologists and psychologists. "At the moment, Dr Bullock-Saxton is conducting a case series testing the Vielight device with different application protocols and, with her clinical colleagues, is testing the motor (movement) and non-motor outcomes of participants through a rigorous series of measures," Dr. Laakso said.

The team hopes to have some publishable results of a Brisbane-based placebo-controlled proof-of-concept trial (funded by the Cromwell Foundation) of transcranial PBM before the end of 2018 which will inform a multi-centre trial.

Each site has a basic underlying protocol common to all sites yet each site has a slight variation in order to test different clinical questions.

This research study paves the way for greater discoveries in this upcoming field.

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## Altering your conscious states with low energy stimulation

presented by Dr Sanjay Manchanda at the Transtech 2018 conference

EVER wonder what other applications brain photobiomodulation(PBM) might have on mental states? Dr Sanjay Manchanda may have found the answer to that question.

Dr Sanjay Manchanda, an expert in meditation with a Ph.D. in Computer Science and a Master's in Counseling Psychology, talks about the use of transcranial direct stimulation(tDCS) but focuses primarily on brain PBM to enhance meditation and cognitive abilities.

His presentation was fitting for the Transtech 2018 conference, which focuses on technologies that help and prioritize human flourishing and well-being.

During his 20-minute presentation, he begins with a brief introduction on how he became involved in this field. Being a former sufferer of chronic fatigue syndrome(CFS), he dives anecdotally into his use of various low energy stimulation methods to alleviate his symptoms.

Of more relevance, he talks about ongoing studies and recent findings by research institutions in the field of brain PBM with Vielight technology and how they relate to improved mental well-being, cognition and experiences in meditation.

He also touched on the findings at the University of New Mexico. They found that using

the Neuro Gamma significantly boosts cognitive performance in real time. The studies are being replicated under more rigorously controlled conditions and results are expected to be presented soon.

Curiously, long-term meditators such as monks and yogis have prominent high frequency Gamma in their brains, suggesting that successfully inducing high frequency could alter meditative states.

With a prototype of the Neuro Pro, Dr. Manchanda was able to test the effects of different pulse frequencies. In his investigations, he found that long term meditators were able to enter

recognized advanced meditative states faster.

Based on his experience with pulsed frequencies, he also hypothesized that in the future, we could effectively treat pain with pulsed PBM.

The implications of this exercise in meditation could be game-changing. While it often takes several hours of deep meditation to reach desired meditative states, a Vielight Pro device, with variable frequencies could decrease the time taken.

The Neuro Pro is under development.

This presentation is available on Vielight's youtube channel (<https://www.youtube.com/watch?v=AKXJvZyFlyo>)

## Find us at the A4M conference tradeshow

VIELIGHT will conclude its exciting year of conferences with the 26th Annual World Congress of the American Academy of Anti-Aging Medicine (A4M), taking place in Las Vegas from December 14 to 16.

This is the second time that Vielight will participate in A4M. The company will have its own booth at the conference, allowing conference attendees the op-



portunity to experience Vielight technology at close quarters.

The conference will be hosted at the Vene-

tian Palazzo Resort and is expected to attract thousands of exhibitors and clinicians from across the globe, pre-

senting world-renowned keynotes and speakers who will highlight the most innovative and cutting-edge practices and

protocols in modern integrative healthcare.

"A4M is the perfect opportunity for Vielight to round off its 2018 season of conferences and exhibitions," said Dr. Lew Lim, CEO and Founder of Vielight Inc. "Interest in photobiomodulation and its applications is increasing the world over, and conferences such as A4M will help to create greater awareness about the science and our own contributions."

Interested to become a Vielight Reseller or Introducer? Write to us at [info@vielight.com](mailto:info@vielight.com)