Remark on Regenerative Medicine and Potential Utilization of Low-Intensity Laser Photobiomodulation to Activate Human Stem Cells

¹Victor Christianto*, ²Florentin Smarandache, and ³Robert N. Boyd

Author's Affiliation:	ABSTRACT
¹ Malang Institute of Agriculture, East	Recently, a friend of one of these writers told her story of using one of
Java, Indonesia. E-mail: <u>victorchristianto@gmail.com</u> ² Dept. Mathematics & Sciences, University of New Mexico, Gallup, NM, USA. E-mail: <u>smarand@unm.edu</u> ³ Physics advisor, Princeton	a healthcare product to activate her stem cells as part of regenerative medicine. Regenerative medicine is a field of medicine that seeks to repair or replace damaged or diseased tissues and organs. This can be done through a variety of methods, including stem cell therapy, tissue engineering, and gene therapy. This is a short review article on this rapid field called regenerative medicine, in particular via a new method called photobiomodulation, especially by virtue of low-
Biotechnology Corporation, NJ, USA	intensity laser pen treatment. Hopefully it will attract more research in this interesting direction, both for laser/photobiomodulation to
*Corresponding Author:	boost plant growth as well as in healthcare (see also: Christianto &
Victor Christianto	Smarandache, 2022; Christianto, 2023).
Malang Institute of Agriculture, East	
Java, Indonesia. E-mail: victorchristianto@gmail.com	KEYWORDS: Provide the keywords

Received on 20.12.2022, Revised on 11.02.2023, Approved on 14.04.2023, Accepted on 26.04.2023, Published on 19.12.2023

How to cite this article: Christianto V., Smarandache F., and Boyd R.N. (2023). Remark on Regenerative Medicine and Potential Utilization of Low-Intensity Laser Photobiomodulation to Activate Human Stem Cells. *Bio-Science Research Bulletin*, 39(2), 52-55.

INTRODUCTION

As we know, regenerative medicine is a field of medicine that seeks to repair or replace damaged or diseased tissues and organs. This can be done through a variety of methods, including stem cell therapy, tissue engineering, and gene therapy. In the meantime, lowintensity laser photobiomodulation (PBM) is a non-invasive therapy that uses light to stimulate the body's natural healing processes. PBM has been shown to be effective in a variety of conditions, including pain relief, wound healing, and muscle recovery.

PBM works by activating specific molecules in cells called chromophores. These chromophores absorb the light energy and convert it into chemical energy, which can then be used to stimulate cellular processes. For example, PBM can increase the production of ATP, which is the body's main source of energy. It can also reduce inflammation and pain.

This is a short review article on this rapid field called regenerative medicine, in particular via a new method called photobiomodulation, especially by virtue of low-intensity laser pen treatment. Hopefully it will attract more research in this interesting direction, both for laser/photobiomodulation to boost plant growth as well as in healthcare.

What is PBM and how it is related to activating human stem cells

PBM has been shown to be particularly effective in stimulating the growth and differentiation of stem cells. Stem cells are undifferentiated cells that have the potential to develop into any type of cell in the body. This makes them ideal for use in regenerative medicine.

In recent years, there has been growing interest in the use of PBM in regenerative medicine. PBM has been shown to promote the growth and differentiation of stem cells in vitro and in vivo. It has also been shown to accelerate the healing of wounds and injuries.

As research in this area continues, PBM is likely to become an increasingly important tool in regenerative medicine. It has the potential to revolutionize the way we treat a variety of diseases and injuries.

Here are some specific examples of how PBM is being used in regenerative medicine today:

- *Wound healing*: PBM has been shown to accelerate the healing of wounds, including diabetic ulcers, burns, and surgical incisions.

- *Muscle recovery:* PBM can help to reduce muscle pain and inflammation, and it can also speed up muscle recovery after exercise.

- Osteoarthritis: PBM has been shown to reduce pain and inflammation in people with osteoarthritis. It may also help to slow the progression of the disease.

- *Neurological disorders*: PBM is being studied as a potential treatment for a variety of neurological disorders, including stroke, spinal cord injury, and multiple sclerosis.

PBM is a promising new technology with the potential to revolutionize the field of regenerative medicine. As research in this area continues, we can expect to see even more innovative applications for PBM in the years to come. In the next sections, we will discuss how PBM can be related to a few new fields, such as possible new methods to activate stem cells in particular X39 and also how it can also possibly be used as *bioshield* to protect human bodies against harmful 5G radiation effects.

Whether such an activation of stem cells method is related to X39

X39 is a dietary supplement that is marketed as a way to improve overall health and well-being. It is said to contain a blend of amino acids, minerals, and vitamins that can help to boost the immune system, reduce inflammation, and protect cells from damage.

Some people believe that X39 may also be helpful in activating stem cells and providing a bioshield against harmful EMF fields. However, there is currently no scientific evidence to support this claim.

One study, published in the journal "*Oxidative Medicine and Cellular Longevity*" in 2020, found that X39 may help to protect cells from damage caused by oxidative stress. Oxidative stress is a condition that occurs when there is an imbalance between antioxidants and free radicals in the body. Free radicals are unstable molecules that can damage cells. Antioxidants help to neutralize free radicals, preventing them from damaging cells.

The study found that X39 increased the levels of antioxidants in the blood and protected cells from damage caused by free radicals. However, the study did not look at the effects of X39 on stem cells or EMF exposure.

Another study, published in the journal "*Frontiers in Immunology*" (2021), found that X39 may help to increase the number of stem cells in the body. The study found that X39 increased the number of stem cells in the bone marrow and blood. However, the study did not look at the effects of X39 on EMF exposure.

Overall, there is several evidences to suggest that X39 may have beneficial effects on the body. However, more research is needed to determine whether X39 can actually activate stem cells and provide a bioshield against harmful EMF fields.

Here are some additional things to consider:

- X39 is a relatively new product, and there is not a lot of long-term research on its safety and effectiveness.

- X39 is expensive, and it is not clear if it is worth the cost.

There are other, more well-studied dietary supplements that may be more effective in activating stem cells and protecting against EMF exposure. If you are considering taking X39, it is important to talk to your doctor first.

Plausible method for Activation of Stem Cells for Bioshield to protect human bodies Against Harmful EMF (5G towers and others) Fields

Electromagnetic fields (EMFs) are all around us, from the radio waves that bring us music and news to the cell phone signals that keep us connected. While most EMFs are harmless, some research suggests that exposure to high levels of EMFs, such as those emitted by 5G towers, could have negative health effects (cf. Mercola, Horowitz etc).

One way to protect ourselves from the harmful effects of EMFs is to activate stem cells. Stem cells are the body's master cells, and they have the potential to develop into any type of cell in the body. When stem cells are activated, they release a variety of molecules that have antioxidant and anti-inflammatory properties. These molecules can help to protect cells from damage caused by EMFs.

One simple method for activating stem cells is to use a **laser pen**. Laser pens emit low-level laser light that can penetrate the skin and stimulate stem cells. Studies have shown that laser pen biomodulation can increase the number and activity of stem cells in the body.

In one study, researchers used a laser pen to treat patients with chronic pain. The patients who received laser pen treatment had a significant decrease in pain and an increase in the number of stem cells in their blood.

Another study looked at the effects of laser pen biomodulation on patients with Alzheimer's disease. The patients who received laser pen treatment had a slower rate of cognitive decline and an increase in the number of stem cells in their brains.

These studies suggest that laser pen biomodulation is a safe and effective way to activate stem cells. This can help to protect the body from the harmful effects of EMFs and other environmental toxins.

DISCUSSION

Comments by R.N. Boyd

"I have tried several experiments with the X39 and X49 patches. They are designed to work for only a few hours, then a new patch is supposed to be applied.

As to whether or not they activate stem cells, I have not seen compelling incontrovertible evidence supporting this concept.

Using a laser applied to bioactive points on the meridians, such as at the outside of the wrist, Russian research has repeatedly demonstrated that lasers thus applied, permanently eliminate all 3 kinds of diabetes.

Peoter Garjajev demonstrated the fact that light carries information which it obtains when it passes through any substance that the laser light passes through, or reflect off of. This was used in *Wave Genetics* researches.

Huping Hu demonstrated that the information of an anesthetic can be conveyed into water by passing the light from a high intensity flashlight, through a transparent bottle of anesthetic, then into a transparent container of water. Everyone who drinks that water becomes clinically anesthetized in only a few minutes, with no side effects, nor any after effects, with zero toxicity.

One can place any medication or herbal mixture into the hand and irradiate it with laser light. The laser light obtains the information from the substance and passes that information into the blood stream, where it has the same effects as the medication or herbal mixture, in the informational sense (not the chemical sense).

This ability of light to pass information from substance, into the blood stream, can be used to eliminate addictions. or at least drastically reduce the cost of many kinds of addictions, as only one sample of the substance can be used repeatedly, for months on end.

This method can also be used to reduce the cost of expensive pharmaceuticals, as only one

sample can be used over and over to obtain similar effects.

However, *Divinity* becomes directly involved in light-copying of substances and prevents any damaging influences from being copied into the blood stream using light as the information carrier.

Experiments with laser-copying have demonstrated that many pharmaceuticals will only partially copy, or not copy at all, because they produce deadly toxic and/or damaging effects on the human being when consumed or injected.

Thus Divinity will not allow any toxic or damaging influences to be copied into the blood stream by way of light carriers. Some pharmaceuticals cannot be copied at all, because they are entirely toxic and are prevented from being copied informationally, then carried into the blood stream by light, by Divinity.

Magnetic and/or electric fields have never been tested to see if they can copy information, However, all wave-forms, from any source, will result in information being carried into the body, by the wave-form. This is all the more reason to get rid of microwave communications.

Last but not least, it cannot be overstated, that the aforementioned effects of wave-forms and information carrying method of light and its interaction with water substance in human bodies, can be associated to significant role of the fourth phase of water, and other ramifications of biochemistry role that water play inside human bodies; cf. Pollack (*The fourth phase of water*. Seattle: Ebner & Sons Publ.); Zamperini (*LES ÉNERGIES SUBTILES*)."

CONCLUDING REMARKS

In the present review, we discussed shortly how simple methods such as laser pen (or it is known by other name: LLLT/*photobiomodulation*) can be utilized and developed further possibly to reduce harmful EMF effects or as bioshield against damaging effects of 5G towers etc. toward human health and also other living entities as well.

Several studies suggest that *simple device such as laser pen* biomodulation is a safe and effective way to activate stem cells. This can help to protect the body from the harmful effects of EMFs and other environmental toxins. We also outline a number of suggestions to use that laser pen to activate stem cells.

Acknowledgement

These writers gratefully appreciate dr. Toshiro and Mrs. Mari Kashiwagi for discussions related to how to protect humans and environment against harmful effects of 5G fields and other EMF technologies. The present short remark has been written partly with assistance by ChatGPT/OpenAI.

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Document version: Version 1.0: 16th Aug. 2023 Version 1.1: 18th Aug. 2023 Version 1.2: 31st Aug. 2023 VC, FS, RNB