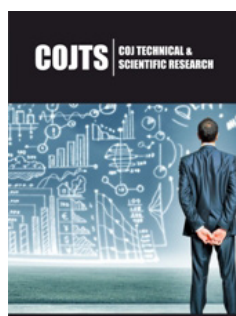


# Isotopic Abundance Ratio Analysis of Biofield Energy Healing Treated L-Tryptophan Using LC-MS Spectrometry

Alice Branton<sup>1\*</sup>, Mahendra Kumar Trivedi<sup>1</sup>, Dahryn Trivedi<sup>1</sup> and Snehasis Jana<sup>2</sup>

<sup>1</sup>Trivedi Global, Inc., Henderson, USA

<sup>2</sup>Trivedi Science Research Laboratory Pvt. Ltd., Thane (West), Maharashtra, India



\*Corresponding author: Alice Branton, Trivedi Global, Inc., Henderson, USA

Submission: 📅 December 07, 2020

Published: 📅 January 21, 2021

Volume 3 - Issue 3

**How to cite this article:** Alice Branton, Mahendra Kumar Trivedi, Dahryn Trivedi, Snehasis Jana. Isotopic Abundance Ratio Analysis of Biofield Energy Healing Treated L-Tryptophan Using LC-MS Spectrometry. COJ Tech Sci Res. 3(3). COJTS. 000562. 2021.

**Copyright@** Alice Branton, This article is distributed under the terms of the Creative Commons Attribution 4.0 International License, which permits unrestricted use and redistribution provided that the original author and source are credited.

## Abstract

L-tryptophan is an essential  $\alpha$ -amino acid, necessary for the normal growth in newborns, nitrogen balance in adults, protein synthesis, precursor of serotonin, melatonin, niacin, and albeit inefficiently in human, also the precursor of indole alkaloids and auxins in plants. This current study was designed to investigate the impact of The Trivedi Effect<sup>®</sup>-Biofield Energy Healing Treatment on the structural properties and the isotopic abundance ratio of L-tryptophan using LC-MS analytical technique. L-tryptophan sample was divided into two parts, one part of L-tryptophan was considered as the control sample (no Biofield Energy Treatment was provided), while the second part was treated with The Trivedi Effect<sup>®</sup>-Consciousness Energy Healing Treatment remotely by a renowned Biofield Energy Healer, Alice Branton and termed as the treated sample. The mass spectra of both the control and treated samples with respect to the chromatographic peak at retention time ( $R_t$ ) 2.1 minutes exhibited the mass of the molecular ion peak adduct with hydrogen ion at  $m/z$  205.08 (calcd for  $C_{11}H_{13}N_2O_2^+$ , 205.1), along with low molecular fragmented mass peaks at  $m/z$  188, 159, and 102 for  $C_{11}H_{12}N_2O_2^+$ ,  $C_{10}H_{11}N_2^+$  and  $C_8H_6^+$ , respectively were also observed. The isotopic abundance ratio of  $P_{M+1}/P_M$  ( $^2H/^1H$  or  $^{13}C/^{12}C$  or  $^{15}N/^{14}N$  or  $^{17}O/^{16}O$ ) in the treated L-tryptophan was significantly increased by 35% compared with the control sample. Hence, the  $^{13}C$ ,  $^2H$ ,  $^{15}N$ , and  $^{17}O$  contributions from  $C_{11}H_{13}N_2O_2^+$  to  $m/z$  206.08 in the treated L-tryptophan was significantly increased compared to the control sample. It could be hypothesized that the changes in the isotopic abundance and mass peak intensities due to the modification in nuclei possibly through the interference of neutrino particles using The Trivedi Effect<sup>®</sup>-Consciousness Energy Healing Treatment. The treated L-tryptophan with increased stable isotopic abundance ratio might have changed the physicochemical properties with higher force constant in the molecule. The new form of treated L-tryptophan would be a better and more stable in the supplements, nutraceutical, and pharmaceutical formulations, which would be advantageous for the prevention and treatment of pellagra, depression, kynurenine. It could also maintain the normal label of tryptophan and avoid increase of its metabolite, lower the neurotoxin and a metabotoxin behavior; glutaric aciduria type I (glutaric acidemia type I) disorder, eosinophilia-myalgia syndrome (EMS), incurable and sometimes fatal flu-like neurological condition, etc. As tryptophan is the precursor for the plant hormones like indole alkaloids and auxins, hence, this treated L-tryptophan would be advantageous for the improvement of yield, productivity, and quality of crops and other plants.

**Keywords:** L-tryptophan; The Trivedi effect<sup>®</sup>; Biofield energy; Consciousness energy healing treatment; LC-MS

## Introduction

L-tryptophan [ $C_{11}H_{12}N_2O_2$ ] is an essential  $\alpha$ -amino acid, which must be obtained from the diet and supplements. It is necessary for normal growth in new-borns, nitrogen balance in adults, protein synthesis, a precursor of serotonin, melatonin, niacin, and albeit inefficiently in human. It is also the precursor of indole alkaloids and auxins in plants [1,2]. It is converted to 5-hydroxy-tryptophan (5-HTP), which increase the production of serotonin, a neurotransmitter essential in regulating sleep, appetite, mood, temperature, sexual behavior, and pain [1,3]. Sources for tryptophan are red meat, eggs, fish, poultry, brown rice, soybeans, chocolate, oats, dried dates, milk, yogurt, cottage cheese, sesame, chickpeas, almonds, sunflower seeds, pumpkin seeds, buckwheat, spirulina, peanuts, etc. [1,2]. The daily requirement of tryptophan for adults is 3mg/kg/day. The tryptophan and protein requirement decreases with age. Improper diet, high maize or other tryptophan-deficient diets, fructose

malabsorption, Hartnup's disease, etc. are the cause for reduced levels of tryptophan in the blood. Tryptophan deficient can be the cause of pellagra; the other deficiency diseases are depression and kynurenine. Under certain situations if the label of tryptophan and its metabolite increase, it can behave like a neurotoxin and a metabotoxin, glutaric aciduria type I (glutaric acidemia type I) disorder, eosinophilia-myalgia syndrome (EMS), create an incurable and sometimes fatal flu-like neurological condition, etc. [1,2,4-8]. L-tryptophan is slightly soluble in water, very slightly soluble in alcohol, practically insoluble in ether and chloroform. On heat to decompose it emits toxic fumes of nitric oxide [1].

The physicochemical properties of L-tryptophan are very important for the supplements, nutraceutical/ pharmaceutical, and other industries. The quality and efficiency of a pharmaceutical/ nutraceutical formulation depend upon the physicochemical properties of the substance, which is a challenging task for the scientific communities [9]. In this scenario, The Trivedi Effect®-Consciousness Energy Healing Treatment have the astonishing capabilities to transform the properties of many living and non-living object(s) [10-14]. The Trivedi Effect® is a natural and only scientifically proven phenomenon in which a person can harness this inherently intelligent energy from the Universe and transmit it anywhere on the planet through the possible mediation of neutrinos [15]. Every living organism possesses a unique infinite, para-dimensional electromagnetic energy field surrounding the body known as Biofield Energy. The Biofield Energy Healers can harness the energy from the "Universal Energy Field" and can transmit into any living or non-living object(s), which is known as the Biofield Energy Healing Treatment. There are several Biofield based Energy Healing Therapies that are used nowadays against various disease conditions [16-18]. Biofield Energy Healing therapy has been recognized worldwide as a Complementary and Alternative Medicine (CAM) health care approach by National Center of Complementary and Integrative Health (NCCIH) with other therapies, medicines and practices such as Ayurvedic medicine, traditional Chinese herbs and medicines, homeopathy, yoga, chiropractic/osteopathic manipulation, Qi Gong, Tai Chi, meditation, acupressure, acupuncture, healing touch, hypnotherapy, naturopathy, Reiki, cranial sacral therapy, etc., [19]. These are the therapies have been well accepted by most of the U.S.A. population with several advantages [20]. The Trivedi Effect®- Consciousness Energy Healing Treatment (Biofield Energy Healing Treatment) also reported with significant results altering the physicochemical properties of chemicals, metals, ceramics and polymers [21-24], transformed antimicrobial properties [25,26], improved agricultural crop yield, productivity, and quality [10,11,27], improved skin health [28,29], improved the cancer in cancer cell line [30], improved bioavailability of pharmaceutical and nutraceutical compounds [31,32], and altered the isotopic abundance ratio [33,34].

Study of the natural stable isotope ratio analysis has many applications in the different field to understand the isotope effects resulting from the alterations of the isotopic composition [35-37]. Gas chromatography-mass spectrometry (GC-MS) and liquid chromatography mass spectrometry (LC-MS) are the widely used sophisticated analytical techniques for the analysis of isotope ratio with sufficient precision [36]. The Trivedi Effect®-Consciousness Energy Healing Treatment could be an economical approach to obtain a better desirable L-tryptophan with improved physicochemical properties for the supplements, nutraceutical, and pharmaceutical formulations. Therefore, this study was designed and evaluated the impact of The Trivedi Effect®-Consciousness Energy Healing Treatment on L-tryptophan using LC-MS for the structural characterization and the isotopic abundance ratio of  $P_{M+1}/P_M$  ( $^2\text{H}/^1\text{H}$  or  $^{13}\text{C}/^{12}\text{C}$  or  $^{15}\text{N}/^{14}\text{N}$  or  $^{17}\text{O}/^{16}\text{O}$ ) compared to the control sample.

## Material and Methods

### Chemicals and reagents

L-tryptophan (>99%) was purchased from Alfa Aesar, India. All other chemicals used during the experiments were of analytical grade available in India.

### Consciousness energy healing treatment strategies

The L-tryptophan powder sample was the test sample divided into two parts. One part of the test sample was considered as a control sample (no Biofield Energy Treatment was provided). However, the other part of the test sample was exposed to The Trivedi Effect®-Consciousness Energy Healing Treatment remotely under standard laboratory conditions for 3 minutes and known as The Trivedi Effect® Treated (Biofield Energy Treated) L-tryptophan. The Biofield Energy Treatment was provided through the healer's unique energy transmission process by the renowned Biofield Energy Healer, Alice Branton, USA, to the test sample. Further, the control sample was treated with "sham" healer for the better comparison. However, the sham healer did not have any knowledge about the Biofield Energy Treatment. After that, the Biofield Energy Treated and un-treated L-tryptophan samples were kept in sealed conditions and characterized using LC-MS analytical techniques.

### Characterization

Liquid Chromatography-Mass Spectrometry (LC-MS) Analysis and Calculation of Isotopic Abundance Ratio

The liquid chromatography-mass spectrometric analysis of the control and Biofield Energy Treated L-tryptophan was carried out with the help of LC-MS Thermo Fisher Scientific, the USA equipped with an ion trap detector connected with a triple-stage quadrupole mass spectrometer. The column used here was a reversed phase Thermo Scientific Synchronis C18 (Length-250mm X ID 4.6mm X 5 micron), maintained at 25 °C. The diluent used for the sample

preparation was methanol. The L-tryptophan solution injection volume was 10 $\mu$ L and the analyte was eluted using acetonitrile (80%) + 0.1% formic acid (20%) pumped at a constant flow rate of 1mL/min. Chromatographic separation was achieved using gradient condition and the total run time was 10min. Peaks were monitored at 278nm using the PDA detector. Mass spectrometric analysis was performed under ESI +ve ion mode. The total ion chromatogram, peak area % and mass spectrum of the individual peak which was appeared in LC along with the full scan ( $m/z$  50-400) were recorded. The total ion chromatogram and mass spectrum of the individual peak (appeared in LC-MS) were recorded.

The natural abundance of each isotope (C, H, N, and O) can be

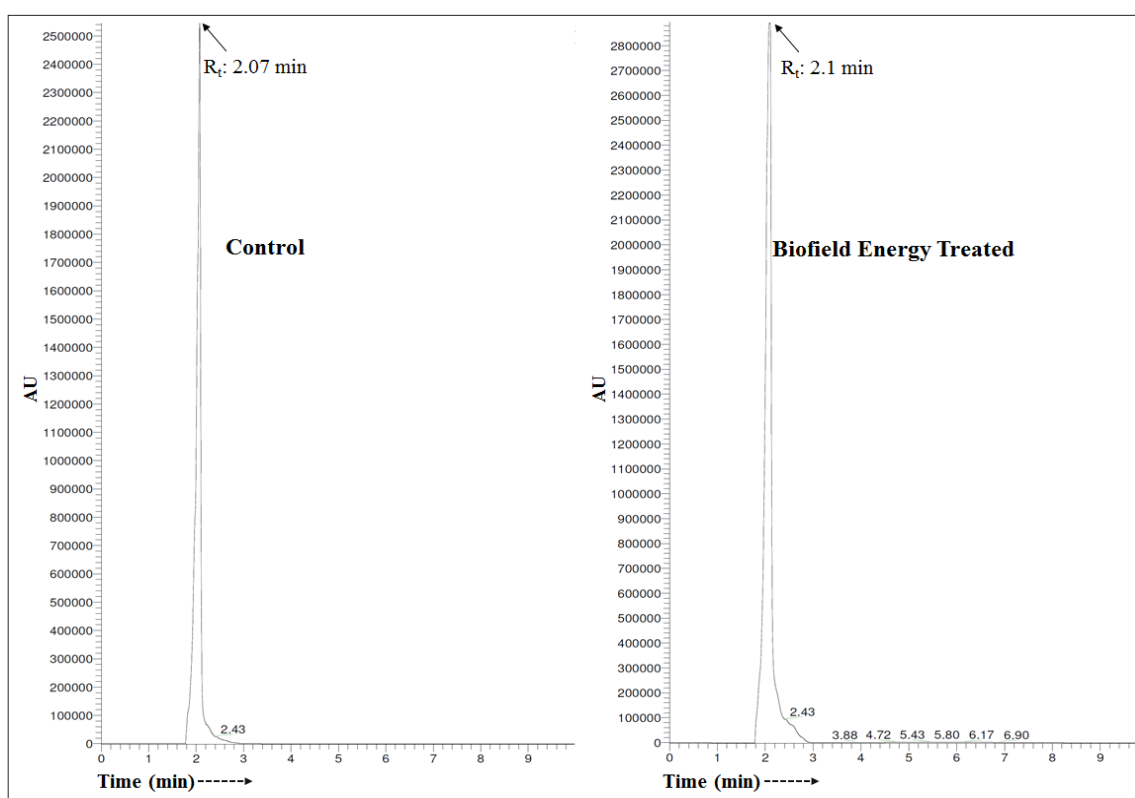
predicted from the comparison of the height of the isotope peak with respect to the base peak. The values of the natural isotopic abundance of the common elements are obtained from the literature [38-40]. The LC-MS based isotopic abundance ratio ( $P_{M+1}/P_M$ ) for the control and Biofield Energy Treated L-tryptophan ( $C_{11}H_{13}N_2O_2^+$ ) was calculated.

Percentage (%) change in isotopic abundance ratio =  $[(IARTreated - IARControl) / IARControl] \times 100$

Where IARTreated = isotopic abundance ratio in the treated sample and IARControl = isotopic abundance ratio in the control sample.

## Result and Discussion

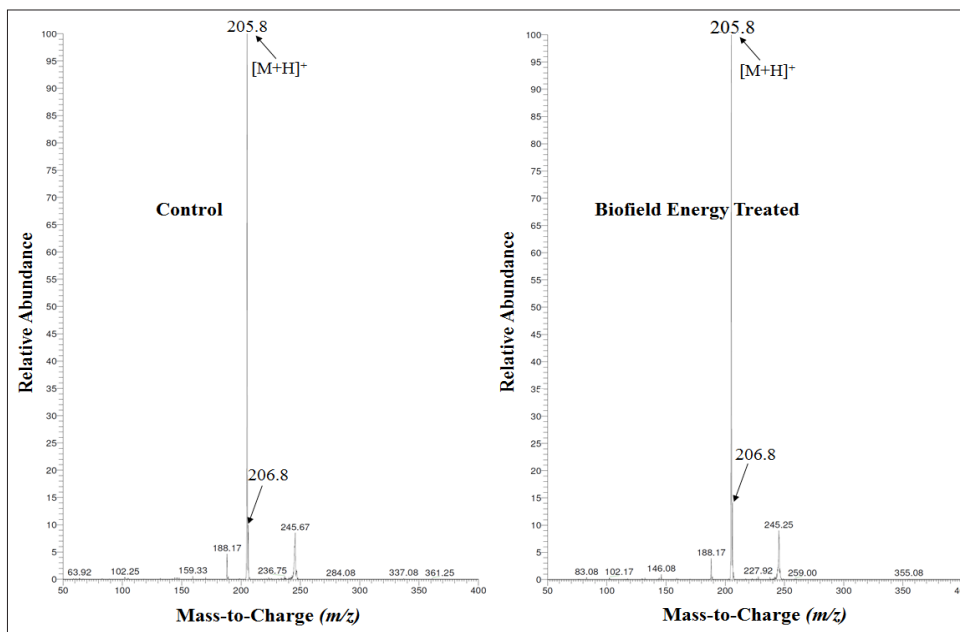
### Liquid Chromatography-Mass Spectrometry (LC-MS)



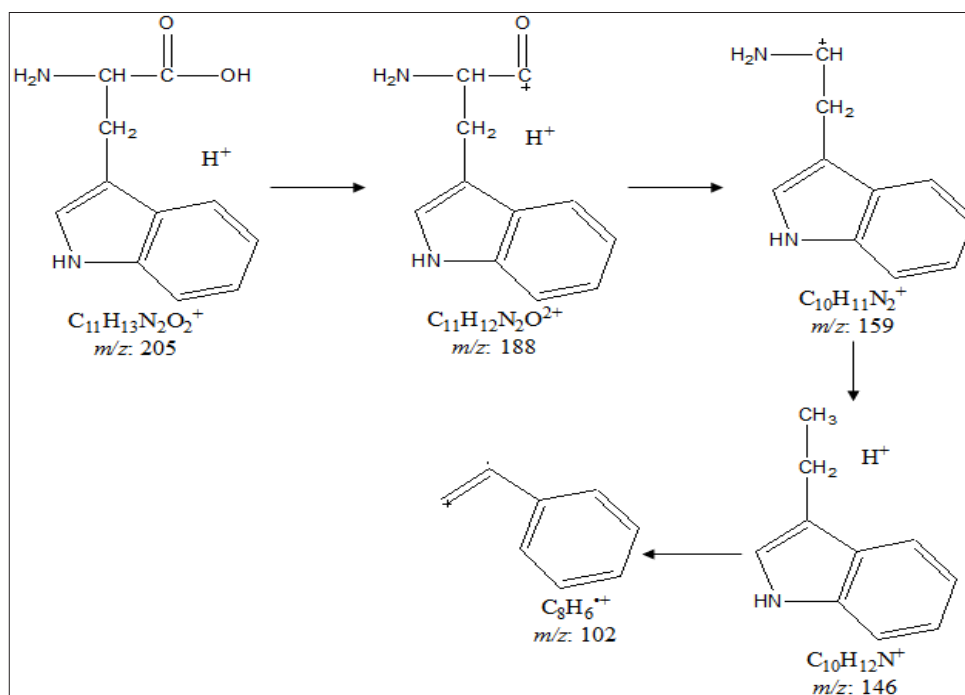
**Figure 1:** Liquid chromatograms of the control and Biofield Energy Treated L-tryptophan.

The control and Biofield Energy Treated L-tryptophan showed a single prominent peak at retention time ( $R_t$ ) of 2.1 minutes in the LC-SM chromatograms (Figure 1). This result indicated that the sample is pure and polarity of both the samples was similar to each other. The mass spectra of both the control and Biofield Energy Treated samples of L-tryptophan are presented in (Figure 2). The mass spectra of both the samples at  $R_t$  of 2.1 minutes exhibited the

presence of the molecular ion of L-tryptophan adduct with hydrogen ion at  $m/z$  205.08 (calcd for  $C_{11}H_{13}N_2O_2^+$ , 205.1), along with low molecular fragmented mass peaks at  $m/z$  188, 159, and 102 for  $C_{11}H_{12}N_2O_2^+$ ,  $C_{10}H_{11}N_2^+$ , and  $C_8H_6^+$ , respectively were observed both in the control and Biofield Energy Treated L-tryptophan (Figure 3). The fragmentation pattern of the experimental data was well supported by the published literature data [41].



**Figure 2:** Mass spectra of the control and Biofield Energy Treated L-tryptophan at  $R_t$  2.1 minutes.



**Figure 3:** Proposed fragmentation pattern of L-tryptophan.

**Isotopic abundance ratio analysis**

The control and Biofield Energy Treated L-tryptophan samples showed the mass of a molecular ion at  $m/z$  205.08 (calcd for  $C_{11}H_{13}N_2O_2^+$ , 205.1) with 100% relative abundance in the spectra. The theoretical calculation of isotopic peak  $P_{M+1}$  for the protonated L-tryptophan presented as below:

$$P(^{13}C) = [(11 \times 1.1\%) \times 100\% \text{ (the actual size of the } M^+ \text{ peak)}]$$

$$/ 100\% = 12.1\%$$

$$P(^2H) = [(13 \times 0.015\%) \times 100\%] / 100\% = 0.195\%$$

$$P(^{15}N) = [(2 \times 0.4\%) \times 100\%] / 100\% = 0.8\%$$

$$P(^{17}O) = [(2 \times 0.04\%) \times 100\%] / 100\% = 0.08\%$$

$$P_{M+1} \text{ i.e. } ^{13}C, ^2H, ^{15}N, \text{ and } ^{17}O \text{ contributions from } C_{11}H_{13}N_2O_2^+ \text{ to } m/z \text{ 206.08} = 13.18\%$$

The calculated isotopic abundance of  $P_{M+1}$  value 13.18% was near to the experimental values (Table 1). From the above

calculation, it has been found that  $^{13}\text{C}$  and  $^{15}\text{N}$  have the major contribution to  $m/z$  206.08.

**Table 1:** LC-MS based isotopic abundance analysis results in Biofield Energy Treated L-tryptophan compared to the control sample.

Parameter	Control Sample	Biofield Energy Treated Sample
$P_M$ at $m/z$ 205.08 (%)	100	100
$P_{M+1}$ at $m/z$ 206.08 (%)	9.74	13.24
$P_{M+1}/P_M$	0.0974	0.1324
% Change of isotopic abundance ratio ( $P_{M+1}/P_M$ ) with respect to the control sample		35.93

The LC-MS based isotopic abundance ratio analysis  $P_M$  and  $P_{M+1}$  for L-tryptophan near  $m/z$  205.08 and 206.08, respectively of the control and Biofield Energy Treated samples, which were obtained from the observed relative peak intensities of  $[M+]$  and  $[M+1]^+$  peaks, respectively in the mass spectra (Table 1). The isotopic abundance ratio of  $P_{M+1}/P_M$  ( $^2\text{H}/^1\text{H}$  or  $^{13}\text{C}/^{12}\text{C}$  or  $^{15}\text{N}/^{14}\text{N}$  or  $^{17}\text{O}/^{16}\text{O}$ ) in Consciousness Energy Healing Treated L-tryptophan was significantly increased by 35% compared to the control sample (Table 1). Thus, the  $^{13}\text{C}$ ,  $^2\text{H}$ ,  $^{15}\text{N}$  and  $^{17}\text{O}$  contributions from  $\text{C}_{11}\text{H}_{13}\text{N}_2\text{O}_2^+$  to  $m/z$  206.08 in the Biofield Energy Treated sample was significantly increased compared to the control sample.

LC-MS study confirmed the structure of the sample as L-tryptophan. The isotopic abundance ratio of  $P_{M+1}/P_M$  ( $^2\text{H}/^1\text{H}$  or  $^{13}\text{C}/^{12}\text{C}$  or  $^{15}\text{N}/^{14}\text{N}$  or  $^{17}\text{O}/^{16}\text{O}$ ) in the Biofield Energy Treated L-tryptophan was significantly increased compared to the control sample. The Trivedi Effect<sup>®</sup>-Consciousness Energy Healing Treatment might have the impact on nuclei of L-tryptophan possibly via the mediation of neutrino particles would be the solid cause behind the change in the isotopic abundance ratio [15,33,34]. A neutrino is an elementary particle that interacts only *via* the weak subatomic force and gravity. The properties to change identities which are only possible if the neutrinos possess mass and have the ability to interchange their phase from one phase to another internally. Therefore, the neutrinos have the ability to interact with protons and neutrons in the nucleus, which indicated a close relation between neutrino and the isotope formation [36,37]. The altered isotopic composition in molecular level of The Trivedi Effect<sup>®</sup>-Consciousness Energy Healing Treated L-tryptophan might have altered the neutron to proton ratio in the nucleus. The Biofield Energy Treated L-tryptophan with increased stable isotopic abundance ratio, might have changed the physicochemical properties with higher force constant with the atoms of the L-tryptophan. The Biofield Energy Treated L-tryptophan with improved physicochemical properties would be more desirable for the supplements, nutraceutical, and pharmaceutical formulations, which would be advantageous for the prevention and treatment of pellagra, depression, kynurenine. It could also maintain the normal label of tryptophan and avoid increase of its metabolite, lower the neurotoxin and a metabotoxin behavior, glutaric aciduria type I (glutaric acidemia type I) disorder, eosinophilia-myalgia syndrome

(EMS), incurable and sometimes fatal flu-like neurological condition, etc. Tryptophan is the precursor for the plant hormones like indole alkaloids and auxins. Therefore, this Biofield Energy Treated L-tryptophan would be advantageous for the improvement of yield, productivity, and quality of crops.

## Conclusion

The Trivedi Effect<sup>®</sup>-Consciousness Energy Healing Treatment (Biofield Energy Treatment) showed the substantial impact on the isotopic abundance ratio of L-tryptophan. The LC-MS spectra of both the control and Biofield Energy Treated samples with respect to the chromatographic peak at retention time ( $R_t$ ) 2.1 minutes exhibited the mass of the molecular ion peak adduct with hydrogen ion at  $m/z$  205.08 (calcd for  $\text{C}_{11}\text{H}_{13}\text{N}_2\text{O}_2^+$ , 205.1), along with low molecular fragmented mass peaks at  $m/z$  188, 159, and 102 for  $\text{C}_{11}\text{H}_{12}\text{N}_2\text{O}_2^+$ ,  $\text{C}_{10}\text{H}_{11}\text{N}_2^+$ , and  $\text{C}_8\text{H}_6^+$ , respectively were also observed. The isotopic abundance ratio of  $P_{M+1}/P_M$  ( $^2\text{H}/^1\text{H}$  or  $^{13}\text{C}/^{12}\text{C}$  or  $^{15}\text{N}/^{14}\text{N}$  or  $^{17}\text{O}/^{16}\text{O}$ ) in the Biofield Energy Treated L-tryptophan was significantly increased by 35% compared with the control sample. Hence, the  $^{13}\text{C}$ ,  $^2\text{H}$ ,  $^{15}\text{N}$  and  $^{17}\text{O}$  contributions from  $\text{C}_{11}\text{H}_{13}\text{N}_2\text{O}_2^+$  to  $m/z$  206.08 in the Biofield Energy Treated L-tryptophan was significantly increased compared to the control sample. It could be hypothesized that the changes in the isotopic abundance and mass peak intensities due to the modification in nuclei possibly through the interference of neutrino particles using The Trivedi Effect<sup>®</sup>-Consciousness Energy Healing Treatment. The Biofield Energy Treated L-tryptophan with increased stable isotopic abundance ratio, might have changed the physicochemical properties with higher force constant in the molecule. The new form of Biofield Energy Treated L-tryptophan would be a better and more stable in the supplements, nutraceutical, and pharmaceutical formulations, which would be advantageous for the prevention and treatment of pellagra, depression, kynurenine. It could also maintain the normal label of tryptophan and avoid increase of its metabolite, lower the neurotoxin and a metabotoxin behavior, glutaric aciduria type I (glutaric acidemia type I) disorder, eosinophilia-myalgia syndrome (EMS), incurable and sometimes fatal flu-like neurological condition, etc. As tryptophan is the precursor for the plant hormones like indole alkaloids and auxins, hence, this Biofield Energy Treated L-tryptophan would be advantageous for the improvement of yield, productivity, and quality of crops and other plants.



## Acknowledgement

The authors are grateful to Sophisticated Instrumentation Centre for Applied Research & Testing (SICART) India, Trivedi Science, Trivedi Global, Inc., Trivedi Testimonials, and Trivedi Master Wellness for their assistance and support during this work.

## References

- https://pubchem.ncbi.nlm.nih.gov/compound/L-tryptophan#section.
- https://en.wikipedia.org/wiki/Tryptophan.
- Timothy CB (1998) 5-Hydroxytryptophan: A clinically effective serotonin precursor. *Altern Med Rev* 3(4): 271-280.
- Joanne H (2018) USDA National Nutrient Database for Standard Reference, Release 22. Nutrient Data Laboratory, Agricultural Research Service, United States Department of Agriculture, Washington DC, USA.
- Ledochowski M, Widner B, Murr C, Sperner UB, Fuchs D (2001) Fructose malabsorption is associated with decreased plasma tryptophan. *Scand J Gastroenterol* 36(4): 367-371.
- Ledochowski M, Sperner UB, Widner B, Fuchs D (1998) Fructose malabsorption is associated with early signs of mental depression. *Eur J Med Res* 3(6): 295-298.
- Allen JA, Peterson A, Sufit R, Hinchcliff ME, Mahoney JM, et al. (2011) Post-epidemic eosinophilia-myalgia syndrome associated with L-tryptophan. *Arthritis Rheum* 63(11): 3633-3639.
- Pusti S, Das N, Nayek K, Biswas S (2014) A treatable neurometabolic disorder: Glutaric aciduria type 1. *Case Reports in Pediatrics* 2014: 1-3.
- Yadav AV, Yadav VB (2008) Designing of pharmaceuticals to improve physicochemical properties by spherical crystallization technique. *Journal of Pharmacy Research* 1(2): 105-110.
- Trivedi MK, Branton A, Trivedi D, Nayak G, Gangwar M, et al. (2015) Morphological and molecular analysis using RAPD in biofield treated sponge and bitter gourd. *American Journal of Agriculture and Forestry* 3(6): 264-270.
- Trivedi MK, Branton A, Trivedi D, Nayak G, Bairwa K, et al. (2015) Physical, thermal, and spectroscopic characterization of biofield energy treated Murashige and Skoog plant cell culture media. *Cell Biology* 3(4): 50-57.
- Trivedi MK, Patil S, Shettigar H, Mondal SC, Jana S (2015) The potential impact of biofield treatment on human brain tumor cells: A time-lapse video microscopy. *J Integr Oncol* 4(3): 1-5.
- Branton A, Jana S (2017) Effect of the biofield energy healing treatment on the pharmacokinetics of 25-hydroxyvitamin D<sub>3</sub> [25(OH)D<sub>3</sub>] in rats after a single oral dose of vitamin D<sub>3</sub>. *American Journal of Pharmacology and Phytotherapy* 2(1): 11-18.
- Trivedi MK, Branton A, Trivedi D, Nayak G, Sethi KK, et al. (2016) Isotopic abundance ratio analysis of biofield energy treated indole using gas chromatography-mass spectrometry. *Science Journal of Chemistry* 4(4): 41-48.
- Trivedi MK, Mohan TRR (2016) Biofield energy signals, energy transmission and neutrinos. *American Journal of Modern Physics* 5(6): 172-176.
- Rubik B, Muehsam D, Hammerschlag R, Jain S (2015) Biofield science and healing: History, terminology and concepts. *Global Advances in Health and Medicine* 4: 8-14.
- Warber SL, Cornelio D, Straughn J, Kile G (2004) Biofield energy healing from the inside. *J Altern Complement Med* 10(6): 1107-1113.
- Movaffaghi Z, Farsi M (2009) Biofield therapies: biophysical basis and biological regulations? *Complement Ther Clin Pract* 15(1): 35-37.
- Koithan M (2009) Introducing complementary and alternative therapies. *J Nurse Pract* 5(1): 18-20.
- Barnes PM, Bloom B, Nahin RL (2008) Complementary and alternative medicine use among adults and children: United States, 2007. *Natl Health Stat Report* 10(12): 1-23.
- Trivedi MK, Branton A, Trivedi D, Nayak G, Panda P, et al. (2016) Evaluation of the isotopic abundance ratio in biofield energy treated resorcinol using gas chromatography-mass spectrometry technique. *Pharm Anal Acta* 7(5): 2-7.
- Dabhade VV, Tallapragada RMR, Trivedi MK (2009) Effect of external energy on the atomic, crystalline and powder characteristics of antimony and bismuth powders. *Bulletin of Materials Science* 32: 471-479.
- Trivedi MK, Nayak G, Patil S, Tallapragada RM, Latiyal O (2015) Studies of the atomic and crystalline characteristics of ceramic oxide nano powders after biofield treatment. *Ind Eng Manage* 4(3): 2-6.
- Trivedi MK, Nayak G, Patil S, Tallapragada RM, Mishra R (2015) Influence of biofield treatment on physicochemical properties of hydroxyethyl cellulose and hydroxypropyl cellulose. *J Mol Pharm Org Process Res* 3(2): 1-8.
- Trivedi MK, Branton A, Trivedi D, Nayak G, Mondal SC, et al. (2015) *In vitro* evaluation of biofield treatment on viral load against human immunodeficiency-1 and cytomegalo viruses. *American Journal of Health Research* 3(6): 338-343.
- Trivedi MK, Patil S, Shettigar H, Gangwar M, Jana S (2015) Antimicrobial sensitivity pattern of *Pseudomonas fluorescens* after Biofield Treatment. *J Infect Dis Ther* 3: 222.
- Trivedi MK, Branton A, Trivedi D, Nayak G, Gangwar M, et al. (2015) Agronomic characteristics, growth analysis, and yield response of biofield treated mustard, cowpea, horse gram, and groundnuts. *International Journal of Genetics and Genomics* 3: 74-80.
- Kinney JP, Trivedi MK, Branton A, Trivedi D, Nayak G, et al. (2017) Overall skin health potential of the biofield energy healing based herbomineral formulation using various skin parameters. *American Journal of Life Sciences* 5: 65-74.
- Singh J, Trivedi MK, Branton A, Trivedi D, Nayak G, et al. (2017) Consciousness energy healing treatment based herbomineral formulation: A safe and effective approach for skin health. *American Journal of Pharmacology and Phytotherapy* 2: 1-10.
- Trivedi MK, Patil S, Shettigar H, Gangwar M, Jana S (2015) *In vitro* evaluation of biofield treatment on cancer biomarkers involved in endometrial and prostate cancer cell lines. *J Cancer Sci Ther* 7: 253-257.
- Branton A, Jana S (2017) The influence of energy of consciousness healing treatment on low bioavailable resveratrol in male Sprague Dawley rats. *International Journal of Clinical and Developmental Anatomy* 3(3): 9-15.
- Branton A, Jana S (2017) The use of novel and unique biofield energy healing treatment for the improvement of poorly bioavailable compound, berberine in male Sprague Dawley rats. *American Journal of Clinical and Experimental Medicine* 5(4): 138-144.
- Trivedi MK, Branton A, Trivedi D, Nayak G, Panda P, et al. (2016) Isotopic abundance ratio analysis of 1,2,3-trimethoxybenzene (TMB) after biofield energy treatment (The Trivedi Effect®) using gas chromatography-mass spectrometry. *American Journal of Applied Chemistry* 4: 132-140.
- Trivedi MK, Branton A, Trivedi D, Nayak G, Sethi KK, et al. (2016) Evaluation of isotopic abundance ratio in biofield energy treated nitrophenol derivatives using gas chromatography-mass spectrometry. *American Journal of Chemical Engineering* 4: 68-77.
- Schellekens RC, Stellaard F, Woerdenbag HJ, Frijlink HW, Kosterink JG (2011) Applications of stable isotopes in clinical pharmacology. *Br J Clin Pharmacol* 72(6): 879-897.

36. Muccio Z, Jackson GP (2009) Isotope ratio mass spectrometry. *Analyst* 134(2): 213-222.
37. Weisel CP, Park S, Pyo H, Mohan K, Witz G (2003) Use of stable isotopically labeled benzene to evaluate environmental exposures. *J Expo Anal Environ Epidemiol* 13(5): 393-402.
38. Rosman KJR, Taylor PDP (1998) Isotopic compositions of the elements 1997 (Technical Report). *Pure and Appl Chem* 70(1): 217-235.
39. Smith RM (2004) *Understanding mass spectra: A Basic Approach*. (2<sup>nd</sup> edn), John Wiley & Sons Inc, Hoboken, New Jersey, USA.
40. Jürgen H (2004) *Gross mass spectrometry: A textbook*. (2<sup>nd</sup> edn), Springer, Berlin, Germany.
41. Jiang P, Dai W, Yan S, Chen Z, Xu R, et al. (2011) Potential biomarkers in the urine of myocardial infarction rats: A metabolomic method and its application. *Mol Biosyst* 7: 824-831.

For possible submissions Click below:

[Submit Article](#)