

# Theory of Solar AntiNeutrinos Stimulating Clumped $^{13}\text{C}$ in Biomolecules for Causing Cancer

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## Abstract

A mechanism for  $^{13}\text{C}$  causing cancer is further evidenced on basis of solar antineutrinos selectively stimulating  $^{13}\text{C}$  relative to  $^{12}\text{C}$  due to years of eating foods enriched in  $^{13}\text{C}$  like from C4 plants and years of exposure to solar antineutrinos with 5 MeV anti neutrinos selectively stimulating  $^{13}\text{C}$  for gamma emission and damage to surrounding DNA and proteins for cancer genesis. The cumulative effects of the enrichment of  $^{13}\text{C}$  in tissue from diet of the host and the years of bombardment with solar anti-neutrinos and low cross-sections of anti-neutrino interactions manifest logical patterns and rhythms for cancer genesis with aging in humans.

## Author's Theory of Stable Isotopes Like $^{13}\text{C}$ Causing Cancer

The author has developed a theory in 2004-06 of strong magnetic field accelerating the inverse beta process of proton + electron + antineutrino forming neutron [1]. The author has further developed theory of nonzero nuclear magnetic moment of protons and nitrogen and phosphorus inducing fractional reversible fission and fusion for driving novel nucleon and nuclei revolutions for stretching into surrounding electronic lattices for proton and neutron orbitals and seeping nuclear fields for manifesting life [2]. The author has reasoned during 2010 that NMMs of other nuclei can alter the intrinsic rhythms of  $^1\text{H}$ ,  $^{14}\text{N}$ ,  $^{31}\text{P}$ . The author reasoned in 2013 that  $^{13}\text{C}$ ,  $^{15}\text{N}$ , and  $^{17}\text{O}$  can alter the intrinsic rhythms of metabolism for causing cancer and other diseases [3]. The author wrote a book between 2013 and 2017 describing how  $^{13}\text{C}$ ,  $^{15}\text{N}$ ,  $^{17}\text{O}$ ,  $^{18}\text{O}$ ,  $^{25}\text{Mg}$ , and  $^{33}\text{S}$  can by their different NMMs alter biochemical reactions for causing Warburg Effect and cancer and for altering replication, transcription and translation of nucleic acids and proteins [4]. The author recently in Feb 2024 reasoned various fields from thermal to electric to magnetic to quantum to weak to strong fields can by Little's Rules induce fractional reversible fission and fusion of nuclei for seeping NMMs into surrounding electronic lattices for altering chemical, physical and biological properties [5]. The author here develops more the stimulation by weak interaction for such fractional fission and fusion of these nuclei for novel isotope effects by differing NMMs can involve anti-neutrinos stimulations.

## Nuclear Reactor AntiNeutrino 5 MeV Bump

Recently scientist in 2015 [6] gave data consistent and supporting the theory of RBL as it was observed that a 5 MeV bump in anti-neutrino spectrum from nuclear reactors. The origin of this antineutrino hump has been intensely studied for last 10 years. The liquid scintillator used to detect such 5 MeV bump contains carbon and hydrogen. Hydrogen has isotopes protium and

deuterium with 10,000 to 1 ratio. Carbon has  $^{12}\text{C}$  and  $^{13}\text{C}$  with 98.9 to 1.1 ratio. The neutron separation energy of  $^{12}\text{C}$  is 18,7 MeV and the neutron separation energy of  $^{13}\text{C}$  is 4.9 MeV [7]. The conversion of  $^{13}\text{C}$  to  $^{12}\text{C}$  via anti-neutrino absorbance would occur via the antineutrino absorbance and exciting  $^{13}\text{C}$  nucleus to state of 4.4 MeV and de-excitation to ground of  $^{12}\text{C}$  via emission of 4.4 MeV gamma photon [7]. Such transmutation can cause damage to biomolecules having  $^{13}\text{C}$  for manifesting RBL theory of  $^{13}\text{C}$  causing cancer. However more recently, scientists observed the antineutrino interactions with  $^{13}\text{C}$  to cause the  $^{13}\text{C}$  bump at 5MeV [8]. The interaction was observed to excite  $^{13}\text{C}$  with de-excitation by emission of 3.685 MeV photon. Such high energy photon can also damage biomolecules for causing cancer.

### **$^{13}\text{C}$ Stimulation by Solar Anti-Neutrinos and Cancer**

On basis of such anti-neutrino dynamics from nuclear reactor, the solar anti-neutrino interactions with humans are reasoned to cause cancer and give support to the author (RBL) theory as providing anti-neutrinos from the sun for stimulating  $^{13}\text{C}$  as from RBL's theory for inducing fractional, reversible fission and fusion of clumped  $^{13}\text{C}$  in biomolecules of proteins, nucleic acids, lipids and carbohydrates for altering biochemistry for causing cancer. Here it is reasoned that the characteristic rare interactions per unit time of anti-neutrinos with atoms in living organism on surface of the earth give logical basis of a cumulative effect of antineutrinos colliding with atoms over years for accruing damage to DNA and other biomolecules for consistent pattern of increased probability of cancer with aging over decades. Furthermore, the activated state of the biochemical reactions of life provides intense internal fields of electromagnetic, quantum and weak natures for by the author's theory increased cross-section for anti-neutrino stimulations of nuclei selectively by nonzero NMMs.

### **Solar Neutrinos Penetrating Humans and Earth**

Solar anti-neutrinos are produced inside the core of the sun. Neutrinos are small particles with very little mass. The author reasoned them fractions of quarks. The neutrinos move at the speed of light. The neutrinos are thought to not interact with normal matter. On such basis it is thought they penetrate the human body with few collisions, even most passing through humans' bodies without collisions. But there are a lot of neutrinos that hit us every second. The sun converts about 600,000,000 tons per second of hydrogen are converted to helium. About  $3.6 \times 10^{38}$  atoms of hydrogen per second are converted to helium inside the sun. These neutrinos penetrate the surrounding objects about the sun. The earth is about 93 million miles away and the earth and objects on the earth are penetrated by these neutrinos. For a cross-sectional area of 1 meter \* meter on surface of the earth,  $1.28 \times 10^{15}$  neutrinos penetrate such meter meter cross-sectional area per second. The human body is about 1/10 of  $\text{m}^2$ . Therefore every second a human on surface of the earth is bombarded by  $60 \times 10^{12}$  neutrinos penetrate the human body per second. Most of these neutrinos are thought to pass through our bodies without colliding with atoms composing our bodies. Occasionally rare collisions of these anti-neutrinos strike a few nuclei to cause rare damage to biomolecules.

## Conclusion

But on the basis of this larger affinity for 5 MeV solar antineutrinos for  $^{13}\text{C}$  isotope, here it is presented that over the life span of a human clumping  $^{13}\text{C}$  in the body the accumulative collisions of the anti-neutrinos with  $^{13}\text{C}$  in the biomolecules can damage biomolecules DNA and RNA to cause cancer.

## References

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