

# QT \$14: Methionine and Tryptophans are Time Crystals

Why did this blog start with a Tryptophan operon lecture? Tryptophan and Methionine are the only two amino acids that have SINGLE codons in the human DNA code. This makes both of them unique compared to the other known 500 amino acids. Our DNA only codes from 20 amino acids. Methionine has to be obtained from the environment. This makes it more unique. What does methionine do in humans that make it UNIQUE? Our start codon to begin all protein synthesis always codes for methionine in HUMANS. This means the methionine cycles are a pretty big controller of something important. Have you ever wonder what they control and why they exist? What if I told you methionine and tryptophan were two-time crystals that tick everytime sunlight in a season interacts with us. One is essential and made only in the environment and the other is made by us and it forms one key chemical that controls our mitochondrial DNA.

## **MELANOPSIN IS A BLUE LIGHT DETECTOR**

The loose covalent binding in humans makes the vitamin A in human ipRGCs more vulnerable to degradation by **BLUE LIGHT**

**IMPLICATIONS:** loss of circadian rhythm is the most sensitive sign of **BLUE LIGHT TOXICITY**

**FOOD GURU FAIL: SKIN IS LARGEST ORGAN IN THE BODY AND IT CONTROLS THE GUT CLOCKS! OOOPS!**

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