Optomechanics (a.k.a. optoepigenetic editing): Next Generation of Medicine

In the same manner as we did with explanations for verifiable causes of cancers attributable to telomere activities and aggressive cancers (i.e. opting to avoid the need to wait for peer-reviewed studies to emerge), the following is provided in an open source format to stimulate discussions with potential entities that have an interest in enhancing, applying and commercializing the concepts of optogenetics and optoepigenetic editing as an optimal tool for precision medicine.

Relative to the application of optogenetics in relation to telomere activity, following a review of our findings for epigenetic activity that regulates the length of telomeres, the following will establish why optogenetics can be applied to address imbalances. <u>http://mcb.asm.org/content/20/3/760</u>

Note: p21 can be verified as being a factor for telomere activity and it can be "regulated" by optogenetics.

The concept of optogenetics (the use of light waves) has been established through countless peer-reviewed research studies as being effective relative to the treatment of disease states. With that being said, Erwin Chargaff's quote applies:

"Science is wonderfully equipped to answer the question 'How?' but it gets terribly confused when you ask the question '**Why**?'" Erwin Chargaff; a member of the Watson and Crick DNA team (1905 – 2002)

Starting in early 2012, intrigued by the fact that blue light was proven to be effective for treatment of many diseases, using $E=MC^2$ as a foundation, we converted quantum chromodynamics into verifiable explanations relative to

optomechanics (amount of energy in terms of vibration) and the energy into cellular level activation of amino acids.

Existing research has identified the fact that the aromatic amino acids (phenylalanine – tyrosine – tryptophan) absorb UV rays starting in the range of 257 - 279 nm; i.e. the range of blue light that is used in optogenetics and optoepigenetic editing.

We have identified most, if not all, epigenetic signaling molecules that regulate anabolic and catabolic activity for entanglement of signaling molecules. Accordingly, we will be able to share these findings with a TBD partner that is seeking to apply optomechanics to regulate cellular health and wellbeing.

Note: In our opinion, the theory of proteins is flawed; i.e. they are not made solely by chains of amino acids. Instead, they are highly complex configurations of epigenetic signaling molecules that regulate cellular mechanisms. The large number of amino acids involved in conjunction with minerals and elements has resulting in the assumption that these configurations are proteins that are limited to amino acids in chains.

When research concerning moonlight appeared, we hypothesized that the UV rays in the range of 320 - 400 nm would activate TBD amino acids as part of optomechanics. Obviously, these observations must be verified by our TBD optomechanics modeling partners.

Our Findings: How They Evolved

The emerging discipline of optomechanics applies the principles of interactions in quantum chromodynamics (the five colors of red, blue, green and 2 yellows) at the level of subatomic particles) to epigenetics at the cellular level. In terms of current theory, the application of optomechanics encompasses the DNA repair mechanism that utilizes phosphotyrosine-binding domain (PTB) signaling molecules; i.e. PTBP1 - 3).

With a confidentiality agreement in place, The Center for Modeling Optimal Outcomes and its life sciences affiliate (MCFIP, Inc.) can provide a verifiable

explanation for **WHY** the process works. A full understanding of the cellular level mechanisms associated with the application of optomechanics will allow for its use to be expanded and refined for addressing a large variety of chronic diseases.

It should be noted that we can also explain how advances in technology can eliminate the need for implantation of probes to regulate optogenetic signaling. <u>http://www.science20.com/news_articles/optogenetics_and_jaws_brain_control_now_without_being_inside_your_skull-139566</u>

Examples of Applications

Hole-in-Heart

http://www.sciencedaily.com/releases/2015/10/151005121308.htm

Cardiac Regulation

http://www.sciencedaily.com/releases/2015/10/151019122422.htm

Neurobiology (Rehabilitation of Spine and Nerve Injury)

http://www.sciencedaily.com/releases/2015/11/151117112521.htm

Cognition

http://medicalxpress.com/news/2015-11-therapy-effective-depression.html

http://medicalxpress.com/print361185957.html

http://medicalxpress.com/news/2015-07-exploring-brain-role-stress-induced-anxiety.html

http://www.sciencedaily.com/releases/2015/08/150828081456.htm

Cancers

http://phys.org/news/2015-03-therapy-deep-tumors.html

http://www.sciencedaily.com/releases/2014/07/140701101357.htm

Note: Our explanation can include details for how <u>optomechanics</u> works to modify cellular abnormalities that are responsible for chronic diseases. <u>http://www.sciencedaily.com/releases/2015/01/150121114604.htm</u> The following information requires discussion to explain how p21 regulates telomere length and the significance of their length relative to chronic diseases. http://mcb.asm.org/content/20/3/760