

CANCER PREVENTION AND COMPLIMENTARY TREATMENT

The Motivation

OR

Will an internist having earned to aggressively research and seize all modern science offers – inside and outside the “standard of care” – ever be able to look at patients and disease in the same way; can she accept mediocre and unnecessary conditions, results and much earlier than necessary patient death?

The answer in a word is, “No.”

Dr. Gelhot, herself procured and experienced a cure of her own cancer and relief of her own immune disease. She ventured (sometimes) bravely and boldly outside of the “Standard of Care” in order to achieve her own disease cure and relief.

The Evidence

OR

Can two Nobel Laureates and a bevy of top research institutions be mistaken?

You can decide the answer to this one by reading the good news below.

Dr. Gelhot has always been in awe of Dr. Watson and Crick who discovered the structure of DNA and won The Nobel Prize for it in 1962. The Prize was "for their discoveries concerning the molecular structure of [nucleic acids](#) and its significance for information transfer in living material"¹ [specifically](#)

^{Together} they penned the book most every premedical student coveted: *Molecular Biology of the Cell*. It has been described as “the most influential cell biology textbook of its time”^[2]

In March, 2012 Watson addressed the Yale science community during the James Watson Lecture. (3) Watson has been to the mountain and back; sitting in the catbird seat he matter of factly and confidently advises now us to pursue cancer as

a metabolic disease. He references metabolic pathways, Metformin preventing cancer and Nobel Prize winner and Otto Warburg's work; imagine that!

The rest of the world is now off on a Genome Hunt and Watson, a DNA pioneer who helped start it has moved on! It was him that the National Institute of Health named Head of the Human Genome Project. Is it even *possible* he is still conducting the orchestra some 60 plus years later? He may be trying to conduct but it seems as though not many are listening. Most are still of sole on the Genome Chase. Watson comes across as the father who knows where all of the Easter Eggs are hidden, he is telling us, "you're getting hotter..."

There was Otto Warburg, a Nobel Nominee and Laureate with 46 nominations over 9 years, who preceded Watson in cancer metabolic thinking. In 1931 the Nobel Prize for Physiology for his "discovery of the nature and mode of action of the respiratory enzyme" finally became his. He declared cancer the result of impaired respiration. (4)

For the last 25 plus years, Dr. Thomas Seyfried a Boston College (BC) professor and Yale fellow and professor has been taking Warburg's work further, showing impaired respiration caused genomic instability and explained the hallmarks of cancer. He capitalized on the fact that cancer cells cannot use ketones for energy due to respiratory insufficiency.

Cancer as a Metabolic Disease by Dr. Seyfried lays out a compelling, irrefutable argument for manipulating insulin with diet (ketogenic diet) capitalizing on the fact that cancer cells cannot use ketones for energy due to respiratory insufficiency. (5) American Society of Clinical Oncologists (ASCO) folks and on down have revered this book for being the treasure it seems to be.

Dr. Dominic D'Agostino of the University of South Florida (USF) works with Hyperbaric Oxygen Therapy (HBOT) with his work showing effective targeting of tumor glycolysis as well. He has been able to use HBOT to insult and destroy cancer cells, even in the case of metastatic cancer.

Dr. Longo at the University of Southern California (USC) as far back as 2008 published in Proceedings of the National Academy of Sciences and has now submitted to ASCO on the subject of ketosis and cancer resolution and ketosis combined with chemo therapy. His results are also quite significant and encouraging. (6)

The Eugene Fine October, 2012 *Nutrition* study from Albert Einstein, demonstrating an insulin-inhibiting diet is safe and feasible in selected patients with advanced cancer proved to be another feather in the cap of the ketogenic treatment of cancer. Findings showed the degree of ketosis, not calorie deficit or weight loss, correlated with disease stability or partial remission. (7)

The research in this area of ketosis and cancer goes on and on... Now enter again Drs. Seyfried and his BC lab and D'Agostino and his USF lab with their latest groundbreaking paper. It is in harmony with all that has been done prior and . Their collaborative effort entitled, *The Ketogenic Diet and Hyperbaric Oxygen Therapy Prolong Survival in Mice with Systemic Metastatic Cancer*. A ketogenic diet was shown to extend life. HBOT reverses the tumors anaerobic environment. Increased free oxygen from regular intermittent HBOT caused disruption of the oncogene signaling and tumor death. (8)

Their landmark study laid the groundwork for human trials to follow now and indeed, the next trials using these modalities are planned to be human!

Though these trials have yet to begin, already for a number of years, a relatively small but significant group of patients - some who also received standard of care treatment and some who are refusing standard of care treatment - are using these alternative or complementary treatments. Specifically these patients, who seem to be from most parts of the USA, are attempting to use HBOT and a ketogenic diet on their own. They have often reported achieving what they say are documented cures of their various types of cancers, including cancers which had metastasized. Additionally, national and international plans for commercial HBOT are already in play to make HBOT widely accepted, accessible and affordable.

Results from human studies in formation now are expected to soon pave the way to future investigation of ideal approaches to ketosis; they will possibly include ketone supplementation for ketosis augmentation. At first glance, aside from efficacy, ketosis and HBOT seem to be synergistic; also it is key they first do no harm to normal cells. This safety and efficacy is proven in mouse trials and reported thus far in human anecdotal instances. Such seemingly novel approaches to cancer growth slowing, arrest, and regression, actually address the lynchpins of cancers dysmetabolic self.

[1] [^] [^] [^] [The Nobel Prize in Physiology or Medicine 1962](#). Nobel Prize Site for Nobel Prize in Physiology or Medicine 1962.

- [2] Taylor and Francis Website:
http://www.taylorandfrancis.co.uk/shopping_cart/products/product_detail.asp?sku=&isbn=9780815341116&parent_id=&pc=/shopping_cart/search/search.asp
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- [4] Otto Warburg - Biography. 1931. Nobelprize.org. Available at:
http://nobelprize.org/nobel_prizes/medicine/laureates/1931/warburg-bio.html. Accessed July 15, 2010.
- [5] [Cancer as a Metabolic Disease: On the Origin, Management, and Prevention of Cancer](#) by Thomas N. Seyfried , Wiley; 1 edition (June 26, 2012)
- [6] [Starvation-dependent differential stress resistance protects normal but not cancer cells against high-dose chemotherapy](#) by Raffaghello L, Lee C, Safdie FM, Wei M, Madia F, Bianchi G, Longo VD. Proc Natl Acad Sci U S A. 2008 Jun 17;105(24):8215-20. doi: 10.1073/pnas.0708100105. Epub 2008 Mar 31.
- [7] [Nutrition](#). 2012 Oct;28(10):1028-35. doi: 10.1016/j.nut.2012.05.001. Epub 2012 Jul
[Targeting insulin inhibition as a metabolic therapy in advanced cancer: a pilot safety and feasibility dietary trial in 10 patients](#) by Fine EJ, Segal-Isaacson CJ, Feinman RD, Herszkopf S, Romano MC, Tomuta N, Bontempo AF, Negassa A, Sparano JA; Department of Radiology (Nuclear Medicine), Albert Einstein College of Medicine, Bronx, New York, USA.
- [8] [PLoS One](#). 2013 Jun 5;8(6):e65522. doi: 10.1371/journal.pone.0065522. Print 2013.
[The ketogenic diet and hyperbaric oxygen therapy prolong survival in mice with systemic metastatic cancer](#) by Poff AM, Ari C, Seyfried TN, D'Agostino DP. Department of Molecular Pharmacology and Physiology, University of South Florida, Tampa, Florida, USA.

The Help

Dr. Gelhot has been working with ketogenic diets for years. She has used them in patients for weight loss and is also using it as an adjunct to cancer prevention and treatment.

She is much more than happy to consult with patients who have cancer as well as other patients, assisting them and their physicians with their goals. She welcomes taking patients on the surprisingly happy ketogenic journey towards healing and health.