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Resources and Notes for Australia Cancer Lectures
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Clinical Approaches to Cancer Therapy

- Schachter, M. Integrative oncology for clinicians and cancer patients. *International Journal of Integrative Medicine* (2010) Vol. 2, No 1, 52-92.
<http://www.schachtercenter.com/IntegrativeOncologySIMJournal.pdf>
- Schachter, M. Integrating nutrition and selected controversial nutritional supplements into a cancer treatment program. *Cancer Strategies Journal* (2013) Vol.1, Issue 3, 39-47.
www.cancerstrategiesjournal.com/MichaelSchachterMDArticleSummer2013.pdf (This link incorporates corrections to the original printed version)
- Quote by Albert Saint-Gyorgyi: **“Discovery consists of seeing what everybody has seen, and thinking what nobody has thought”**. See:
http://www.brainyquote.com/quotes/authors/a/albert_szentgyorgyi.html#ixzz1lkjiGfxS/
- A major thesis of this presentation is that Alternative treatment protocols have the potential to be competitive if not superior to conventional treatments. They should be considered as a primary, not merely supplementary option for treatment.
- We are losing the war on cancer as set up by President Nixon in the early 1970’s with little change or an increase in the death rate and the incidence of many cancers
- The understanding about the nature of cancer and cancer treatment are in the process of undergoing major changes, though for economic and social reasons, there is tremendous resistance to these changes. Resistance comes from pharmaceutical companies, organized medicine, insurance companies, institutes of medical education and the media.
- What is cancer according to the National Cancer Institute (NCI)? <http://www.cancer.gov/about-cancer/understanding/what-is-cancer#differences-cancer-cells-normal-cells/> Cancer is a collection of related diseases, whose cells grow uncontrollably, invade tissues and resist dying, even when old. It is a **Genetic disease** characterized by mutations in (a) oncogenes-Genes that accelerate growth; (b) suppressor Genes-genes that suppress growth and/or DNA repair genes.
- **Understanding the nucleus and cytoplasm of a cell, chromosomes, genes, ploidy and mutations:** To understand cancer, we need a rudimentary understanding of the nucleus of a cell, the cytoplasm of a cell, chromosomes, genes and mitochondria. A cell consists of a

nucleus and cytoplasm, the rest of the cell, which surrounds the nucleus. The cell is surrounded by a cell membrane. Within the cytoplasm are small structures called mitochondria in which chemical reactions take place primarily utilizing oxygen that results in the formation of ATP molecules, the major supplier of energy for all of the reactions that take place in the body. This process is known as oxidative phosphorylation and involves a series of biochemical reactions known as the **Krebs Cycle** or the tricarboxylic acid cycle and the **electron transfer chain**. If there is sufficient **damage to the mitochondria**, cells are unable to sufficiently produce ATP molecules via the process of oxidative phosphorylation. Instead they produce ATP molecules without oxygen, largely in the cytoplasm of the cell. This process is very inefficient and produces only **2 ATP molecules** from a molecule of glucose (sugar), whereas oxidative metabolism produces approximately **32 to 38 molecules of ATP** per molecule of sugar. In humans, the nucleus of a cell consists of 23 pairs of chromosomes in females and 22 pairs in males with a X and a Y chromosome. The **ploidy** of the nucleus refers to the number of pairs of chromosomes in the cell. Haploid refers to one set of chromosomes and diploid refers to 2 sets of chromosomes, which is what is present in the normal cell of the human nucleus of the cell. It has been known since about 1914, as described by Boveri that the **nucleus of cancer cells is aneuploid**, which means that the chromosomes of the cells are **totally disorganized, with missing chromosome, more than two of some chromosomes and what appears to be chaos in the nucleus of cancer cells**. Although this has been known for a very long time these differences in the nucleus of normal cells and cancer cells have been largely ignored by scientists dealing with cancer, though some scientists and writers have emphasized this over the last 15 years or so. A nice discussion of this may be found in the May 1, 2007 article by Peter Duesberg in **Scientific American** or another Scientific American article or a June 9 2003 article by W. Wayt Gibbs titled **"Untangling the Roots of Cancer"** or the 2009 book by David Rasnick **"The Chromosomal Imbalance Theory of Cancer."** **Since the 1950's the dominant theory of cancer causation** has been that it is caused by a **series of mutations in the specific families of genes called proto-oncogenes, suppressor genes and DNA repair genes**. This theory has dominated the thinking and drastically affected the research in cancer treatment. What is an alternative theory that began in the 1920s and 30's and has received a lot of attention only in the last few years?

- **What is the major difference between a normal cell and a cancer cells? Cancer cells cannot utilize oxygen in the production of energy molecules (ATP), whereas normal cells use oxygen.** This principle is largely ignored by conventional oncologists, although the idea was first proposed in the 1920s and 30s by Nobel Prize winning physician biochemist, Otto Warburg MD, PhD. Cancer cells require almost 20 times as much glucose (sugar) molecules to produce the same amount of energy as normal cells. Excessive sugar in the bloodstream drives inflammation and drives cancer. The PET scan is an application of cancer cell craving and utilizing sugar more than normal cells. Cancer cells cannot use oxygen as a result of

damage to mitochondria, whereas bio-oxidative metabolism occurs within normal non-cancerous cell. See the book: ***Cancer as a Metabolic Disease*** by Thomas Seyfried PhD and one of his lectures at: <https://www.youtube.com/watch?v=sBjnWfT8HbQ>

- A recent NY Times article on May 16 2016 reflects the notion that mitochondrial damage as the cause of cancer is beginning to hit the mainstream media. The article is titled: *An Old Idea Revived: Starve Cancer to Death*. See: http://www.nytimes.com/2016/05/15/magazine/warburg-effect-an-old-idea-revived-starve-cancer-to-death.html?_r=0
- A New Book: Shows how **the less than useful theory of the somatic mutational theory of cancer fails to lead to useful treatments**. Outlines how the metabolic theory of cancer due to mitochondrial damage results in potentially useful treatments. Some of these groundbreaking treatments are discussed in detail. The book is: ***Tripping Over the Truth*** by **Travis Christofferson**. It has been promoted by Joseph Mercola MD at his website.
- **Cancer cells** are not only characterized by being unable to utilize oxygen because of damaged mitochondria, but also **develop as an adaptation to a low oxygen environment**. This adaptation develops over a long period of time and becomes irreversible. More information about this concept and how it relates to impaired oxygenation of cells via changes related to impaired cell membranes as a result of the incorporation of adulterated fatty acids from processed foods can be found in: **Brian Peskin's book "The Hidden Story of Cancer"**. Also see the website: www.PEO-Solution.com.
- **Parent Essential Fatty Acids, Adulterated Fatty Acids and Dysfunctioning Cell Membranes:** Peskin argues that the parent essential fatty acids (linoleic acid which belongs to the omega 6 family and alpha linolenic acid which is a member of the omega 3 fatty acids) occupy cell membranes and attract into the cells. When they are adulterated (their structure is altered in order to make the shelf life of foods longer), the concentration of oxygen in cells drops significantly. Over time, this increases the risk of cancers becoming cancerous. Another assertion of Peskin is that **fish oil concentrate supplements are not physiologic and are greatly overused by both conventional and alternative practitioners**. One fish oil supplement contains an amount of EPA and DHA found in several fish meals and when the body is overloaded with them, the cell membranes become unstable and the oxygen content in the cells decrease. For an excellent Youtube audio interview of Brian Peskin, watch: <https://www.youtube.com/watch?v=Ei2wUzrXRyU>
For the book, see: <http://brianpeskin.com/reader-reviews.html>
According to Shlomo Yehuda PhD of Israel, the ideal ratio of parent essential fatty acids of omega 6 to omega 3 is 4:1. See: https://www.researchgate.net/publication/227141668_Essential_Fatty_Acids_and_Stress
According to Dave Vousden, a low dose combo of pure Evening Primrose Oil and Fish Oil is being used successfully with salvestrols

- **Conventional Cancer Treatments: Surgery, radiation, chemotherapy and targeted therapies.** Targeted therapies use patented medications to inhibit or block biochemical pathways that play a role in cancer growth and spread. Most generics of these medications end in “mab” (monoclonal antibodies) or “nib” small molecules. Examples are: Herceptin = Trastuzumab (a monoclonal antibody); Avastin = Bevacizumab (a monoclonal antibody); Gleevec = Imatinib (a small molecule); and Tarceva = Erlotinib (a small molecule). The problem is that there are many pathways within a cancer and these drugs have only limited effectiveness and also have side effects. These pathways are used in normal cells as well and strong inhibition of a pathway may cause severe side effects. Also, many of these cancer pathways can be blocked with natural substances with much less side effects.
- **Conventional oncology and the entire field of medicine and health care are driven by profits and use of expensive diagnostic tests and patentable drugs with little attention to non-patentable items like natural substances and less expensive diagnostic procedures.** It is up to the patient to research and gather all relevant information and make a decision based on this information rather than just depend upon the doctor to make the decision. One example of a standard of care principle that I **question is the routine use of radiation therapy for breast cancer after a lumpectomy.** Although the standard protocol for stage 1 and 2 breast cancer calls for a lumpectomy, radiation, possibly chemotherapy and possibly an estrogen blocker, many women are questioning this protocol and opting out of some of these procedures. Radiation appears to reduce the local recurrence rate of breast cancer, but does not improve long-term survival rates or prevent regional or distant metastases. So, is it worth it to do radiation. Many women think not and we have a number of breast cancer patients who have decided not to do radiation and instead focus on several relatively non-toxic strategies, as discussed in this lecture.

Questions that a cancer patient or representative should ask include:

Will

survival time be increased & quality of life be enhanced?

What risks are associated with the treatment?

Morbidity: What adverse side effects are associated with the treatment?

Mortality: What is the likelihood of death associated with the treatment? and

What is the likelihood of the development of secondary cancers from the treatment?

The best available information should be used when making decisions and not limited to only information from clinical trials.

The cost of conventional cancer treatment is staggering, though it is frequently covered by insurance. The **2013 article “The Cost of Living” in *New York Magazine*** dramatically illustrates the costs of many new conventional drugs. See:

<http://nymag.com/news/features/cancer-drugs-2013-10/>

Upton Sinclair, Author of *The Jungle*, a 1906 novel revealing the harsh living conditions of immigrant workers in the meat-packing industry once said:

“It is difficult to get a man to understand something, when his salary depends on his not understanding it.”

Conventional oncology is extremely profitable for oncologists and pharma

Does this help us understand what is happening in health care today and especially with cancer?

- **The significance of cancer stem cells** are just beginning to be appreciated by certain small groups of conventional oncology. To understand cancer stem cells it is important to understand stem cells. **Stem cells** are cells that are located throughout the body that are capable of becoming any of a variety of cells. When a body part is damaged, signals are sent to stem cells in the area. These signals bring about a conversion of the stem cells to the same type of cell as the damaged cells, thus repairing the damage. During embryological development of the fetus, 80% of the precursors to the ova or spermatozoa become these germ cells, which are located in the ovaries and testes respectively. The rest of these cells (20% of them) are scattered throughout the body and become the stem cells. This theory was first elaborated by embryologist **John Beard MD, PhD in his trophoblastic theory of cancer in 1911**. For more about this theory, see the book by the late **Nicholas Gonzalez MD: “The Trophoblast and the Origins of Cancer”** (2010).
- **Cancer Stem Cells** are stem cells that have gone awry and become cancerous. Cancer stem cells constitute **only 1 to 5% of the volume of solid tumors**, but they are extremely important. They are the **main reasons for failure in the treatment of cancer**. They are the only cancer cells that **metastasize**. They are generally **resistant to radiation therapy and chemotherapy** and these treatment modalities will generally concentrate the cancer stem cell and stimulate their growth. This is one reason that solid tumors may shrink with radiation and/or chemotherapy (as shown on CT scans and other imaging), but this shrinkage is **not well correlated with improved survival time or improved quality of life**.
- **Max Wicha MD is a conventional researcher who is doing research in conventional approaches to inhibiting cancer stem cells**. See the Youtube video at: <https://www.youtube.com/watch?v=AG22BEXscQE>. **Brad Weeks MD has been a strong proponent for dealing with cancer stem cells**. A video lecture by him at the Cancer Control Society is: <https://www.youtube.com/watch?v=YYmEluZVJeU> His website is: <http://weeksmd.com/> For a reasonably comprehensive discussion about cancer stem cells see: https://en.wikipedia.org/wiki/Cancer_stem_cell Cancer stem cells have been discussed only within the last 10 to 15 years. The notion that cancer stem cells are very

important in understanding cancer is not fully accepted by many conventional oncologists; but some do. A brief summary article is Diehn, Maximilian Therapeutic Implications of the Cancer Stem Cell Hypothesis *Semin Radiat Oncol.* 2009 April; 19(2): 78–86. See: <https://med.stanford.edu/profiles/maximilian-diehn>
<http://www.medscape.com/medline/abstract/19249645>

- **How can stem cells be controlled? Cancer stem cells are stimulated to proliferate by inflammatory processes and anti-inflammatory activities will inhibit them.** Certain prescription medication (e.g. COX 2 inhibitors like Celebrex) will inhibit inflammation and have anti-cancer properties, but many side effects. A variety of anti-inflammatory strategies, such as an anti-inflammatory diet, low in sugar and processed foods, should inhibit cancer stem cell growth. A variety of natural substances, such as black cumin, curcumin, broccoli extracts, vitamin D and many others have anti-inflammatory actions. Conventional oncology strategies for inhibiting cancer stem cells are focused on patented prescription medications, which have a great profit potential.
- A champion for the use of curcumin for cancer is **Bharat B Aggarwal PhD** who did research at MD Anderson for many years. His article on the many ways that curcumin deals with cancer can be found at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2758121> and his book “*Healing Spices*” is readily available.
- **Salvestrols: A group of novel, relatively non-toxic substances that may be useful for cancer patients:**
- **Salvestrols and CYP1B1.** In the 1990’s, an enzyme known as CYP1B1 was found in cancer cells, but not normal cells. Research showed that a variety of natural substances found in organic fruits, vegetables and herbs, which were designated salvestrols, could combine with the CYP1B1 to form metabolites which stimulated programmed cell death (apoptosis) in cancer cells or inhibited cancer cells in other ways. Since there was no CYP1B1 in normal cells, they caused no harm to normal cells.
- **Books about Salvestrols:**
- Schaefer, BA. *Salvestrols: Nature’s Defence Against Cancer*, Acquired Intelligence Inc., Victoria, Canada, 2012.
- Schaefer, BA. *Salvestrols: Journeys to Wellness*, Acquired Intelligence Inc., Victoria, Canada, 2013.
- **Inhibitors of Salvestrols:** Resveratrol in high doses; Amygdalin=Vitamin B17 = Laetrile or sources like bitter apricot kernels (CAN’T USE WITH SALVESTROLS); Citrus flavanone naringenin from grapefruits; Carbon monoxide (present in cigarette smoke); Various herbicides and pesticides, such as Roundup, as well as many household chemicals;

Cannabis, St. John's Wort, Ginkgo biloba, Gin Seng, Artificial Sweeteners, Calcium D Glucarate and Metformin

- **Synergistic Nutrients for Salvestrols:** Iron-Check Hgb and Ferritin; the backbone of every cytochrome P450 Enzyme contains iron; Magnesium-400 mg Enhances conversion of salvestrol to metabolite; Supports CYP1B1 activity; Niacin or niacinamide-100 mg twice daily-enhances conversion of salvestrol to metabolite; Vitamin B2 (Riboflavin); Biotin-stimulates CYP1B1 production; Selenium; Vitamin C -helps with detoxification; **oxygen is crucial for Salvestrol**-CYP1B1 Activity (attaches to iron).
- **Evidence for Benefits of Salvestrols:** There are no clinical trials or controlled studies; but there are reported and documented case histories. There are case studies, reported in 3 journal articles by Brian Schaefer, as well as informal case reports given to developers of Salvestrol, especially from New Zealand. 21/23 children and adolescent with advanced cancers stable or improved over the last few years; There are also new reports from China; Our own case reports.
- **Salvestrol Point System** is based on selectivity of action of salvestrols. A good diet contains about 300 points of salvestrol, whereas each capsule contains 2000 Points. Dosage depends upon the severity of the condition with 1 capsule daily for prevention and about 8 capsules daily for stage IV advanced cancers.
- **Published papers about Salvestrols**
- Burke, Dan. Evidence that CYP1B1 is a Universal Tumour Marker, *Unpublished Paper with 18 published peer reviewed references*. Access at:
<http://www.salvestrolen.nl/ResearchItem.asp?IDResearch=42>
- Schaefer BA, Tan HL, Burke MD and Potter GA. Nutrition and Cancer: Salvestrol Case Studies, *Journal of Orthomolecular Medicine*, First Quarter 2007, Volume 22, Number 4.https://secure.salvestrol.ca/secure/doc/jom_Schaefer2007CaseStudy.pdf
- Schaefer BA, Dooner C, Burke MD, and Potter, GA. *Journal of Orthomolecular Medicine*, Volume 25, Number 1, 2010.
https://secure.salvestrol.ca/secure/doc/jom_Schaefer2010CaseStudy.pdf
- Schaefer, BA, Potter GA, Wood R and Burke MD. Cancer and Related Case Studies Involving Salvestrol and CYP1B1. *Journal of Orthomolecular Medicine*, Volume 27, umber 3, 2012. https://secure.salvestrol.ca/secure/doc/jom_Schaefer2012CaseStudy.pdf
- Schaefer B. Early Cancer Detection. Orthomolecular Medicine Today 2010 Conference in Vancouver, April 30 - May 2, 2010.
https://secure.salvestrol.ca/secure/doc/ISOMtalk_Schaefer2010.pdf
- **Professional Caregivers and Science Researchers may access many more articles on CYP1B1 and Salvestrols by calling: 250 483-3640 and speaking to Cassandra. By telling her your credentials and telling her you heard about salvestrol in one of**

my lectures, you can request a User Name and Password. Then go to website: www.salvestrol.ca; Click on Practitioner website. A variety of articles and videos on this subject can then be accessed.

- **Schachter Center Approach:** Explore Options. Be aware of characteristics of cancer patients who are successful. See book by Kelly Turner PhD *“Radical Remission: Surviving Cancer Against All Odds”* While at U. of CA Berkeley getting PhD as a social worker who counseled cancer patients, Dr. Turner found a patient with a “spontaneous remission”. She was shocked to learn no one studying “spontaneous remissions”. Spontaneous remissions occur without help from conventional CA treatment. She says that she learned of 1000 spontaneous remission cases in the medical literature. She took a 10- month trip to 10 countries to interview healers; she interviewed 20 survivors and then 80 more. She found 9 characteristics of so-called spontaneous remissions: (1) Radically changing your diet; (2) Taking control of your health; (3) Following your intuition; (4) Using herbs and supplements; (5) Releasing suppressed emotions; (6) Increasing positive emotions; (7) Embracing social support; (8) Deepening your spiritual connection; (9) Having strong reasons for living.
- **Concerns about Integrative Oncology:** Conventional oncology is taken as a given and nutrition and various other non-toxic therapies are seen only as a way of reducing adverse effect of conventional treatment. A good example of this can be found in a book by highly regarded integrative oncologist Keith Block MD *Life Over Cancer*. See: https://www.amazon.com/Life-Over-Cancer-Integrative-Treatment-ebook/dp/B0013TPWNW?ie=UTF8&btkr=1&redirect=true&ref_=dp-kindle-redirect
- Major concerns about corruption, collusion of governmental agencies and the way health care is delivered in the USA and throughout the world can be found in a new series by Ben Swan, which is starting this week: <https://www.facebook.com/BenSwannRealityCheck/videos/1126042897460659/?pnref=story> and a newly release full length movie “VAXXED”, which raises the question of corruption at the USA’s Center for Disease Control (CDC) and vaccine recommendations. See: <https://www.facebook.com/BenSwannRealityCheck/videos/1126042897460659/?pnref=story>
- **At the Schachter Center,** we emphasize non-toxic natural substances unlikely to cause problems, though we frequently work with cancer patients who also receive conventional treatment from other practitioners. We try to work out Individualized dietary recommendations as to what to avoid and what to eat. We also focus on

normalization of sleep with non-toxic approaches; Exercise program; IV infusions of vitamin C (50 or 60 grams) or possibly IV hydrogen peroxide therapies or possibly IV Alpha Lipoic Acid. We use a variety of natural supplements, individualized for maximum benefits: These might include: Salvestrols, balanced vitamin and mineral formulas, optimized vitamins C, D, A, K2 (MK4 form only), Beljanski formulas, proteolytic enzymes, probiotics, iodine, amygdalin (B17, Laetrile: only if Salvestrols not used), numerous anti-cancer nutrients including Soul (an excellent source of black cumin), curcumin, CoQ10, broccoli sprout extracts, Avemar (Oncomar) and others. Attempt to individualize and recommend what patient can handle.

- **Vitamin C Actions with respect to cancer:** Increased immune system with increased lymphocytes and production, stimulation of collagen formation necessary to wall off tumors; inhibits of hyaluronidase to keep ground substance intact and preventing mets; inhibition of oncogenic viruses; corrections of C deficiency commonly seen in cancer patients, enhance healing of surgical wounds, enhance anticancer effects of certain chemotherapeutic agents; prevents free radical damage; produce hydrogen peroxide which may help to kill cancer cells by forming the hydroxyl radical in cancer cells because they lack catalase; may help to neutralized certain cancer producing substances.

Large doses of oral vitamin C can be very helpful to cancer patients as seen in this paper by **Stephen Hickey PhD**:

<https://www.csom.ca/wp-content/uploads/2013/03/Vitamin-C-and-Cancer-Is-There-A-Use-For-Oral-Vitamin-C-28.1.pdf>

This is also elaborated in another paper:

http://www.peakenergy.com/news/VitaminC_Cancer_w_Comments.pdf.

Also, check-out the website of the Vitamin C Foundation at:

<http://vitaminfoundation.org/alerts.php>

- **Vitamin D and Cancer:** Endemic deficiency. Best marker for deficiency is 25 Hydroxy D level and we check this on all patients. For Cancer patients our goal is; 60 to 80ng/ml and sometimes up to 100ng/ml. For prevention of cancer, our goal is at least 50ng/ml See video: <http://www.youtube.com/watch?v=3GM0CnO6-ds> (The Dinomit theory of cancer; How vitamin D reduces the incidence of cancer by Cedric Garland PhD) and <http://www.youtube.com/watch?v=-Za2H5oTXJY> (Robert P Heaney MD on the Diagnosis and Treatment of Vitamin D deficiency). Vitamin D and D receptor play a role in Macrophage Activating Factor (GcMAF) and the Innate Immune System's attack on cancer cells. For a good discussion about GcMAF, see Dr. Jeffrey Dach's article at : <https://truemedmd.com/2013/06/cancer-immunotherapy-with-macrophage-activating-factor/>

- An excellent well referenced review of “Vitamin D and Chronic Illness” can be found at: http://restorativemedicine.org/journal-viewer/?a=aHR0cDovL3d3dy5yZXN0b3JhdGl2ZWZvcm11bGF0aW9ucy5jb20vVml0YW1pbi1ELWFuZC1NYWpvc11DaHJvbmljLUIsbG5lc3M_ZnJhbWVDb250ZW50PTE&w1=650&h1=20000&t=Vitamin%20D%20and%20Major%20Chronic%20Illness
- **Vitamin D Needs to be balanced with vitamin A**, as they work as a team and vitamin K2 (I prefer MK4, rather than MK7, which is present in most supplements).
- An excellent review of “The Anticancer Effects of Vitamin K” in the *Alternative Medicine Review* in 2003 can be found at: https://www.researchgate.net/publication/10591470_The_anticancer_effects_of_vitamin_K
- **Attention to Iodine status:** Measure random urine iodine and make sure iodine present in program.
- **Attention to essential fatty acids;** focus on linoleic acid (omega 6) and alpha linolenic acid (omega 3). Aim for balance of 4:1 omega 6 to omega 3. Avoid adulterated fatty acids in processed foods to improve oxygenation to cells.
- **Attention to sufficient minerals** that are balanced well.
- **Help with tapering prescription drugs** when possible. **Help with tapering prescription drugs** when possible. For an excellent discussion about the danger of prescription drugs, see the **book “A Mind of Your Own” by psychiatrist Kelly Brogan MD**. See the Youtube Video at: <http://kellybroganmd.com/>
- **Detoxification** with saunas, exercise, coffee enemas in some cases.
- **Beljanski Products:** Real Build-May help to increase platelets and all types of white blood cells, especially when patients receiving chemotherapy or radiation; Gingko V: May offer some protection against abnormal scar tissue formation; Pao Pereira some evidence of anti-cancer properties and crosses the blood brain barrier; Rauwolfia vomitoria-evidence of anti-cancer properties, especially in hormone sensitive cancers. See: www.natural-source.com for more information about the products.
- Fermented wheat germ products may be beneficial for cancer patients. See www.avemar.com for the original studies and <http://www.metatrol.com/> for the newest product Metatrol.
- **Low Dose Naltrexone to help improve immune functioning** (dose 1.5 mg to 4.5 mg at bedtime) was developed by **Bernard Bihari MD (1930-2010)** and has been used to help patients with a wide variety of cancers and a variety of autoimmune disorders. Information can be found at a number of websites, including: <http://www.lowdosenaltrexone.org/>, www.ncbi.nlm.nih.gov,

<http://www.drwhitaker.com/what-is-low-dose-naltrexone/and>
<http://www.lowdosenaltrexone.org/gazorpa/interview.html>

- **Bert Berkson MD, PhD** has developed protocols for the treatment of cancer and liver disease. These involve the use of IV and oral alpha lipoic acid, low dose naltrexone, oral ALA, selenium, milk thistle and B vitamins. A summary of his work can be found in the Townsend Newsletter in 2007:
<http://www.townsendletter.com/Dec2007/alphalipo1207.htm>
This article includes a description of several pancreatic cancer patients with liver metastases that showed long-term survival.
- **New Possibility:** Exciting clinic in Budapest Hungary. Technology allows for increasing oxygen in tissues with 3 oxygen baths daily. Anecdotal reports of advanced cancer patients that have improved significantly after staying at Center for weeks to months. Relatively inexpensive; See
<http://www.kagun.eu/products-services/bath-therapy;>
May be coming to NYS later this year
- Good sources for information about relatively non-toxic approaches to cancer:
www.fromcancertohealth.com (**Abe Safirstein**); <https://thetruthaboutcancer.com/>
Series of DVDs available with interviews of practitioners and patients benefitting from alternative approaches; www.cancercontrolsociety.com Annual California conferences and DVDs of lectures; www.annieappleseedproject.org Annual conferences and recordings of past conferences
- **How far can we go with minimal use of conventional cancer therapy? TIME WILL TELL!!!**