



Stan Gerson, MD

ability to cure disease and cancer by using an organic vegetarian diet, raw juices, and natural supplements to treat toxicity and nutritional deficiencies that underlie the causes of chronic disease.

Dr. Gerson highlighted a recent study by Chen-Yu Zhang that shows we literally are what we eat! When we consume broccoli and other plants, they produce, as we do, regulatory molecules called microRNAs that are critical in turning on and turning off a variety of genes. For instance, three very

“For academic center buy-in we need to start integrative oncology training at the beginning of medical school, create research centers, career development and faculty appointments, i.e., professorships, and make an investment in the field of integrative oncology. For health care professionals, it will require cross-training, pain/palliative/psycho-social care, and oncology nursing because long-term survivorship for patients is critical. We need to improve our capacity to deliver complementary services.

“For companies, a great example is one of our conference co-sponsors, Parker Hannifin. They are leading the way through employee education by promoting a healthy lifestyle, by balancing health benefits, and by supporting the academic and community efforts that are so critical for this to move forward. In terms of health care reform, they have learned that the best way to reduce health care costs and premiums is to begin well before the diagnosis

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important microRNAs that come from broccoli get metabolized in our gut travel through our liver and end up in our blood stream to modulate the proteins and DNA products that are being produced in the cells.¹ As Dr. Gerson said, “this shows there *really* is biology regarding nutraceuticals and whole foods, and there is a real hard-core impact when we eat broccoli or other vegetables and fruits because many of the genes that our cells are expressing will change as a result. I believe that this is just the tip of the iceberg as we try to understand the effect that our diet has on our biology.”

Speaking about the success of integrative oncology and lessons learned, he reminded us that it is a complex field and “integration is a process that we’re never really done with.” He predicts that it will flourish when efforts can coordinate science, clinical trials, observation, and patient management. This requires an open mind, patience, and linking outcomes to evidence. To succeed, the field of integrative oncology will benefit from a huge degree of buy-in.

When a doctor in the audience asked, “How do we get others involved in this field?” he responded: “For physicians, it starts with getting them out of their individual practice styles and into a multi-disciplinary approach, to remind them that their curative treatments are for life-long disease and illness, and that the surgeon can’t walk away after the case; they need to be involved longitudinally. We need to educate the entire physician population about the field of complementary medicine and embrace supportive and complementary care.

of cancer by promoting and supporting improved lifestyles.

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When asked what the greatest barrier integrative oncology faces in moving forward, Dr. Gerson replied, “Getting the word out! There is a lot of confusion about what integrative oncology is. How do we publicize our interests in the lay press, in the community and in academic literature, and through training as well as evaluation in our medical centers? The barrier to integrative oncology that had been very apparent a decade ago has lessened. Many medical centers are starting to bring together complementary medicine and integrative oncology. However, it is worrisome that they aren’t making the connections between all of the therapies, as you can see when they have their comprehensive cancer centers in one location and the complementary oncology services in another location. The connections are not there. The integration of the effort must start at the top.”



Lynda Balneaves, PhD
Photo courtesy of Martin Dee

A paper presented by Lynda Balneaves, PhD during the “The Best of SIO” session is a prime example of the problems that arise when the integration of therapies are *not* designed from the top. Her study, “The Experience of Integrative Oncology: Just on Paper?”² was one of ten top papers chosen to be showcased at the conference. This landmark study cast light on the barriers patients themselves face when attempting

to utilize integrative oncology. She explored the process of integrating conventional cancer care with complementary therapies from the perspective of individuals who live with cancer.

These patients, she pointed out, are left with the responsibility as well as the physical and emotional burden of finding information from both complementary practitioners and conventional health professionals, managing conflicting advice from multiple practitioners, making treatment decisions based on their input, and evaluating the potential outcomes of care from each type of practitioner. Until these barriers are addressed through the processes of communication, education, and health policy, Dr. Balneaves argues that integrative oncology will remain a concept “just on paper” and not become a reality within cancer care settings.

These two presentations thus highlight the importance of building the field of integrative oncology by including all types of licensed health care providers on the IO team. The need has never been greater. The NIH has reported that by 2030, more and more people in North America (50% of all people in the U.S.) will be facing a cancer diagnosis at some point in their lives.³ The author believes that true integration not only will improve clinical outcomes but will also assist the field of integrative oncology as it evolves and becomes a reality in mainstream health care.

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As demonstrated in the research presented at the SIO conference and discussed in this four-part series, many complementary medical professionals have collectively contributed to the healing process of cancer patients. Unfortunately, most of these professionals do this in an isolated fashion—independently in their private practices—with little to no opportunity for communication with or inclusion in mainstream oncology or integrative practices.

It is hoped that this series of articles has shown the need for and will encourage more open communication across all modalities of medicine, by fostering greater interest and thus greater results on the part of oncology centers. To achieve this end, hospital administrators must bring licensed acupuncturists, herbalists, and other holistic practitioners onto their teams to insure cohesive care under one roof. It is also essential to have fully trained, board-certified acupuncturists on research teams that are studying acupuncture and herbal efficacy. This will ensure their expertise on the design and execution of the studies, likely resulting in a more accurate picture of the benefits of AOM. As Dr. Gerson suggested, “If integrative oncology is to flourish, it truly must be designed at the top, and not as an afterthought.”

References

1. Zhang D H, Xi C, Lingyun Z, Yujing Z, Jing L., Exogenous plant MIR168a specifically targets mammalian LDLRAP1: an evidence of cross-kingdom regulation by microRNA. *Cell Research*, September 20, 2011
2. Lynda Balneaves, PhD., designed and presented this sub-study for the Path Study research team, led by principal investigator Marja Verhoef, PhD, University of Calgary, and included Mary Koithan, University of Arizona, Sara Warber, University of Michigan, Emily McKenzie, University of Calgary, and Andrea Mulkins, University of Calgary. Contact: Lynda Balneaves, University of British Columbia: Lynda.Balneaves@nursing.ubc.ca
3. Smith BD, Smith GL, Hortobagyi GN, Buchholz TA. Future of Cancer Incidence in the United States: Burdens upon a changing nation. *J Clin Oncology* 27; 2009. Available at: <http://jco.ascpubs.org/cgi/doi/10.1200/JCO.2008.20.8983>