



Society for Integrative Oncology 14th International Conference: A Report

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The Society for Integrative Oncology (SIO) held their 14th annual conference November 12-14, 2017, in Chicago, Illinois. It was co-hosted by Northwestern University's Osher Center for Integrative Medicine and the Robert H. Lurie Comprehensive Cancer Center.



Jun Mao, MD, MSCE

The conference, "Person-Centered Care in Integrative Oncology," was attended by over 300 people from 18 different countries. Participants were researchers, clinicians, teachers, and administrators as well as patient advocates. SIO President Jun Mao, MD, MSCE welcomed the attendees.

Dr. Debu Tripathy, professor and chairman of the Breast Medical Oncology department at the MD Anderson Cancer Center, spoke on the topic, "Understanding Systems Medicine through Systems Biology." An apropos kickoff to the conference, Dr. Tripathy utilized an omics perspective connecting the worlds of conventional and traditional medicines within oncology.

He described the similarities and influences that each have on the other—illustrative of a truly integrative approach to cancer care. This was further fleshed out by the merging of his experience as a medical oncologist and his research with a traditional Tibetan medicine physician, Dr. Yeshi Dhonden.

Drs. Elena Ladas, Matthew Ciorba, and Robert Chapkin comprised the panel of the first plenary, "Natural Products and Diet on the Microbiome and Cancer." The discussion included the feasibility of probiotics in children and adolescents undergoing hematopoietic cell transplantation, the efficacy of probiotics in cancer therapy induced diarrhea, and the use of dietary bioactives to reduce the risk of colon cancer.

Notable takeaways included the observation that probiotics may have a role as a radio-protectant and that a combination of fish oils and fermentable fibers can dramatically reduce colon cancer. During lunch, former SIO president, Dr. Stephen Sagar spoke about why



Debu Tripathy, MD

Official SIO Definition of Integrative Oncology:

“Integrative oncology is a patient-centered, evidence-informed field of cancer care that utilizes mind and body practices, natural products, and/or lifestyle modifications from different traditions alongside conventional cancer treatments.

Integrative oncology aims to optimize health, quality of life, and clinical outcomes across the cancer care continuum and to empower people to prevent cancer and become active participants before, during, and beyond cancer treatment.”

medical schools should be teaching integrative health. This topic reinforced the systems model and the integrative approach to oncology in Dr. Tripathy's keynote.

Dr. Margaret Chesney, distinguished professor of medicine at the University of California, San Francisco, spoke on “Integrative Oncology: The Catalyst and Bellwether for Integrative Medicine and Health.” She presented an historic evolution about of integrative medicine, positing that cancer has been the engine behind this direction. She also noted that research shows the United States ranks 27 out of 35 countries in life expectancy despite having the highest health care cost per capita.

Summarizing a statement made after a 2009 summit on integrative medicine and public health by then-president of the Institute of Medicine Dr. Harvey Feinberg, Chesney said, “We don't have a health care system. We have a disease-driven system that is fragmented, that is reactive, and that is impersonal.” With additional research indicating a growing trend of hospitals offering integrative services and that 85% of patients are demanding integrative therapies, she emphasized that now is an opportune

time to advance their impact. Moved by the experience of helping her husband battle lymphoma and her continued work in the field, Dr. Chesney's commitment to the advancement of integrative medicine was inspiring.

The second plenary, presented by the panel of Drs. Abby Rosenberg, John Salsman, and Crystal Park, was titled “Meeting the Integrative Oncology Needs of Young Adult Cancer Patients.” Dr. Rosenberg provided a brief history of adolescent and young adult oncology and looked at whether resilience is a factor that can offset the impact of serious illness. Dr. Salsman followed with a presentation of his preliminary results of a web-based positive emotion intervention for young adult cancer survivors. Dr. Park closed the plenary by discussing the mirroring mechanisms and effects of yoga for adolescent and young adult cancer survivors. They each stressed that adolescent and young adult cancer patients have distinct and different needs from adults, both physically and psychosocially.

I attended an evening presentation of a series of abstracts on traditional Chinese medicine (TCM) and acupuncture. Dr. Dongmei Chen, a PhD student at the Beijing University of Chinese Medicine, initialized the session by presenting her in-vivo research on the effects of Liujuanwei (LJAW) decoction on Cisplatin-induced nausea and vomiting. The research indicated that LJAW positively modifies the intestinal microflora to reduce it. Michael McCulloch, a San Francisco-based acupuncturist, presented on whether or not acupuncture can reduce hospitalization risk and length of stay during outpatient chemotherapy. His study of 661 patients found that acupuncture helped reduce hospitalization risk by 12% and length of stay by two days, both of which were statistically significant.

Dr. Xin Wang of the MD Anderson Cancer Center presented results of a randomized, double-blind controlled trial on whether or not the Chinese formula Renshen Yangrong Tang (RSYRT) can reduce cancer-related fatigue. It demonstrated significant statistical and clinical improvement in cancer survivors with moderate to severe fatigue. Dr. Ting Bao of Memorial Sloan Kettering then presented her team's RCT on acupuncture for breast cancer-related lymphedema (BCRL). Intriguingly, it followed a pilot study by Cassileth et al. from 2013. Both trials studied the effects of acupuncture by

“The American Society of Acupuncturists congratulates the Society of Integrative Oncology for a successful and informative conference. Workshops such as “When Personalized Traditional Chinese Medicine Meets Integrative Oncology: A U.S.-China Conversation” led by Dr. Ting Bao highlight the importance of international collaboration to learn from one another and to share treatment strategies. The clinical pearl I received from this all-female panel was the use of TCM herbal foot soaks with marbles for those patients with neuropathy. With increasing public and professional interest, the ASA will continue to collaborate with SIO to further promote acupuncture and East Asian medicine as vital integrative services in healthcare of all our patients!”

—LiMing Tseng, Secretary, American Society of Acupuncturists, Acupuncturist, Stowe Acupuncture, Stowe, VT

needling into lymphedematous tissue—a generally frowned upon practice due to risk of infection. While Cassileth’s pilot found that acupuncture may reduce lymphedema, Dr. Bao’s study did not.

The session concluded with Dr. Nozomu Kawashima of Nagoya University Hospital in Japan. He assessed the effectiveness of the Kampo formula Choreito on intractable hemorrhagic cystitis in children undergoing stem cell transplantation. He found that the duration from treatment to resolution of macroscopic hematuria was significantly shorter in the Choreito group.



David Cella, PhD

On the second day, Dr. David Cella, from Northwestern University’s Feinberg School of Medicine, delivered a keynote on “Patient Reported Outcomes Measurement Information

System (PROMIS).” Established in 2004 with funding from the NIH, this was one of the initiatives of its “Roadmap for Medical Research.” PROMIS utilizes available information technology to develop, test, and implement a system that collects and quantifies numerous clinically important outcomes, including physical, mental, and social health.

With some of the known difficulties in conventional research in its application to many integrative therapies, PROMIS’s set of person-centered measures can serve as invaluable research tools. The system continues to develop new questions and outcomes and has evolved to include a web-based system. The website allows patients to report online and gives researchers access to item banks and results, thus providing flexibility and efficiency. PROMIS and other validated tools are completely free. Learn more at: www.healthmeasures.net.

Following Dr. Cella’s talk, the plenary, “Integrative Innovations in Digital Health Technologies with Cancer Patients and Survivors,”

continued along a similar theme. Dr. Jennifer Ligibel of the Dana Farber Institute presented her study, “Breast Cancer Weight Loss Trial” (BWEL), which showed that women who were obese at the time of diagnosis had a higher rate of recurrence and mortality than women who were leaner. Using health technology to implement the study, Dr. Ligibel discussed its advantages and disadvantages.

While she was able to design a cost-effective trial with a large and diverse population leading to generalizable results, challenges with implementing a lifestyle intervention via technology had to be navigated. The ongoing BWEL trial has thus far been very successful and currently includes participation from over 1000 centers.

Dr. Lynne Wagner of Wake Forest spoke on three research initiatives: implementing electronic patient reported outcomes in cancer clinical care, provider perspectives on integrating digital health technologies in clinical care delivery, and a targeted e-health intervention designed to reduce recurrence among breast cancer survivors. Takeaways included that digital health technologies can potentially integrate the assessment of cancer patients in a robust and precise manner, electronic patient reported outcomes can help streamline and make clinical encounters more efficient, and electronic health interventions can potentially provide coping strategies for fear of cancer recurrence.

Dr. Joseph Greer of the Massachusetts General Hospital Cancer Center rounded out the plenary, pointing out that there is approximately one cardiologist for every 71 persons experiencing a heart attack and one oncologist for every 141 newly diagnosed cancer patients. However, there is only one palliative medicine physician for every 1200 patients living with a serious or life-threatening illness, leaving a significant gap in palliative care.

Dr. Greer then spoke about the novel development of a cognitive-behavioral therapy (CBT) mobile app to treat anxiety in patients with incurable cancer. While further work is needed to increase engagement over time and expand population size and diversity to help confirm findings, the app can potentially provide an extra layer of support to terminally ill cancer patients to improve anxiety in a simple and feasible manner.

“I thought the conference a huge success. I was unsure as to what to expect because it was my first SIO conference. I was very intrigued with the idea of traditional allopathic medicine sponsoring an alternative point of view. The research was encouraging and gratifying but I was very excited to see the bridge between the western and eastern philosophies of medicine starting to be constructed. I believe the essence of the conference was to provide the importance of both medicines working together, like yin/yang. At least that’s my dream for humanity!”

—Janis Regier, Acupuncturist, Natural Therapy, Omaha, Nebraska

"I joined SIO in 2008 at the recommendation of my mentor, Peter Johnstone, MD, who was one of the founders of SIO. In those early years, the majority of attendees were MD oncologists. Though there were very few acupuncturists, our medicine was well respected by the oncologists and I found many highly experienced researchers to network with and consult and collaborate with. Following the 2016 joint conference SIO/SAR/IFS in Boston, now about one quarter of conference attendees are practitioners of Asian medicine from countries including U.S., China, Japan, Korea and Israel, representing the profession on almost all special interest groups and committees. This infusion of Asian medicine comes from the dedicated work of both Misha Cohen, a long time SIO member who also served on the SIO board, and to Jun Mao, MD, MSCE who served as SIO president from 2015-2017."

—Jennifer A. M. Stone, LAc, Acupuncturist, Bloomington, Indiana

The second plenary provided a mixture of history, research, and trends in the use of various forms of "Art as Medicine." Drs. Sherry Goodill, Debra Burns, and Teresa Gilewski presented respectively on dance movement therapy, music therapy, and film. Dr. Goodill showed that when dance movement therapy is used in conjunction with conventional therapies it may reduce depression, reduce anxiety, and increase quality of life. However, she also clarified that more research needs to be done with cancer patients in particular before any conclusions can be drawn.

Dr. Burns spoke about the potential role of music therapy in oncology and end of life care. Using approximately 20 different music-based interventions, music therapists provide tailored therapies based on an assessment of patient needs and preferences. An interesting clinical implication of one study found that music imagery actually heightens distress in certain individuals with a high internal locus of control, suggesting that this particular music-based intervention may be better suited for those with a lower locus of control.

Dr. Gilewski closed the plenary by discussing "The Role of Film to Highlight the Human Elements of Medicine." Starting with a quote from the famous physician Dr. William Osler who stated that "The practice of medicine is an art, not a trade..." Dr. Gilewski walked us through how medical education evolved to be more scientific, analytical, and less humanistic. She suggests that films can foster humanism and concluded the presentation with excerpts from a number of touching documentaries she produced featuring the experiences of physicians, patients, and family members.

Afternoon plenary sessions included, "When Personalized Traditional Chinese Medicine Meets Integrative Oncology: A U.S.-China Conversation." It featured a panel of U.S. and China trained oncologists discussing case studies. Dr. Ting Bao presented the U.S. approach and Dr. Yun Xu of Xiyuan Hospital presented the Chinese approach to a pair of breast cancer cases. This was followed with a pair of colorectal cancer cases respectively presented by Drs. Yufei Yang and Wenli Liu of China and the U.S.

Both the U.S. and Chinese approaches to the cases featured the use of integrative therapies. Unsurprisingly, they diverge when it comes to the use of Chinese herbal medicine (CHM). While the U.S. treatments willingly incorporated a number of adjuvant interventions, such as acupuncture, yoga, and massage, the Chinese approach routinely used CHM throughout the entirety of care. Dr. Yun Xu stated that while only 5% of cancer patients use acupuncture in China, over 80% use CHM.

Naturally, the concern of herb-drug interactions arose during discussion. During open questioning, Dr. Weidong Lu pointed out the complexity of the issue, citing studies in which some herbal medicines have a negative impact on the chemotherapeutic agent 5-FU, while the herbs used in Dr. Xu's case did not. He encouraged his Chinese colleagues to work to resolve the herb-drug interaction issue as it is one of the significant barriers to its assimilation into conventional U.S. care.

On day three, a presentation, "Integrative Models: Learning from the Examples of Three Breast Cancer Centers" included physicians from three different institutions and from three different countries who briefly described their breast cancer center models. This panel included Dr. Petra Voiss of the University of Suisenberg-Essen, in Germany, Dr. Claudia Witt of the Institute for Complementary Medicine in Zurich, Switzerland, and Dr. Ting Bao from Memorial Sloan Kettering (MSK).

At the University of Suisenberg-Essen, both outpatient and inpatient integrative services are available. Their team is currently comprised of MDs, nurses, an acupuncturist, mind-body therapists, and psycho-oncologists. All inpatients are seen during rounds and informed about integrative oncology services. If interested, they may receive a consultation for a number of therapies, including acupuncture, massage, neural therapy, and mistletoe treatment. Outpatients are offered a consultation after discussions at the tumor board. Additionally, cancer patients are offered a daycare clinic that is covered by health insurance.

Dr. Bao then discussed MSK's breast treatment service. It is an extremely busy clinic, conveniently located within the hospital's Breast and Imaging Center (BAIC). They offer acupuncture, massage, exercise, and mind body therapy. Breast cancer patients see breast surgeons or medical oncologists initially, where they can receive a patient-centered consultation that factors in diet, exercise, mind-body, supplements, and sleep. Specific recommendations for individual patients are made thereafter.

These consultations are covered by insurance, since it is under the MSK cancer care umbrella. However, there are still out-of-pocket expenses for the therapies themselves. Since there are only four integrative medicine physicians for the entire hospital, wait lists are up to three months out.

The Breast Cancer Center at Lucerne (Switzerland) is comprised of a collaboration between conventional cancer clinicians, a yoga teacher, music therapist, two physiotherapists, and one TCM based nutritionist. Breast cancer surgeons are trained in multiple integrative therapies, including auricular acupuncture as well as needling of selected body points, mistletoe treatment, lifestyle advice, and relaxation techniques.

Aromatherapy and PC6 acupressure is available and provided by the nursing team for inpatients. Another nurse with a secondary qualification offers TCM nutrition consultations. An exercise program is available from the physiotherapy team, and yoga is provided via a collaboration with an external instructor. Information about integrative therapies is provided during the patient's oncological consultation and via leaflets. Exercise, yoga, and TCM nutrition services are available at any time for patients.

Physician and nursing consultations and exercise sessions are fully covered by insurance, however, yoga and nutrition counseling are not. While these three centers from three different countries differed greatly in many regards, two things were apparent to me: out of pocket expenses are still a significant barrier to integrative care access and having an oncologist serve as an advocate for these therapies is crucial to their acceptance and implementation in the conventional care setting.

The conference concluded with the "Best of SIO" in which researchers of selected abstracts presented. Three of the five abstracts related specifically to TCM. Dr. Tony Hung presented his survey, "What if Acupuncture is Covered by Insurance?" which had three interesting findings: 50% of 668 patients surveyed would be willing to try acupuncture for pain if it were covered by insurance, if you are white, more educated, and in more pain, you were more inclined to try acupuncture, and finally that patients were more willing to try acupuncture if they had higher expected benefit, lower perceived barriers and if they perceived acupuncture as socially normal. He pointed out some shortcomings of the survey,

namely social desirability bias, the measure of willingness rather than actual use, and the lack of generalizability.

Yawen Geng, a PhD candidate from Fudan University in Shanghai, presented "Analysis of the Correlation between TCM Syndrome Types and the Status of the Inflammatory Response in Pancreatic Cancer." She found that systemic inflammatory response varies with different TCM patterns. The pattern of "excess Heat" showed the highest neutrophil/lymphocyte and platelet/lymphocyte ratios, while showing the lowest lymphocyte/monocyte ratio. This is, suggestive of longer overall survival, while the "Spleen qi" pattern with the lowest count of lymphocyte subsets may have a shorter overall survival.



Misha Cohen, OMD, Dipl Ac & CH (NCCAOM), LAc

Dr. Misha Cohen, a longtime and esteemed TCM practitioner presented the findings of her phase 2 clinical trial utilizing the topical Chinese herb Arnebia Indigo Jade Pearl (AIJP) cream in a sample population of HIV+ adults with HPV-related high grade intraepithelial lesions. The study was done in conjunction with UCSF and the American College of Traditional Chinese Medicine. It found that 54% patients in the treatment group experienced

a complete or partial response vs. 31% using a placebo. Results were statistically and clinically significant, with no serious adverse events. Dr. Cohen concluded that AIJP is a safe and feasible option and shows promise as not only an anal cancer preventative, but adjuvant therapy for ablation in cases of large volume disease.

"Medical providers such as MDs and NPs were the largest represented population, but LAcS were the next most represented medical providers!"

—Eric Raymond Buckley, DOM, Board Member, American Society of Acupuncturists, Acupuncturist, Christus St. Vincent Hospital, Sante Fe, NM



Lynda Balneaves, RN, PhD

Thank you Dr. Mao for your service and help in developing such an environment, and I am certain this will continue with new SIO's new president, Lynda Balneaves, RN, PhD.

This was my third SIO conference and I continue to be impressed by the volume and level of information provided and the opportunity to develop relationships with like-minded colleagues. Among all attendees there was an atmosphere of mutual respect and appreciation, regardless of discipline.

Dr. Balneaves brings a wealth of clinical and research experience to the organization and is recognized as a nursing leader within integrative health care. Her appointment to the presidency of the SIO is not only reflective of her accomplishments but also of the truly open and integrative foundation of the SIO, which has demonstrated a history of appointing leaders from a variety of professions.

The SIO's 15th Annual International Conference theme will be "From Research to Practical Applications." It will be held October 27-29, 2018, at the Scottsdale Resort at McCormick Ranch in Scottsdale, Arizona.

Photos provided by the Society for Integrative Oncology

Editor in Chief Jennifer Stone, LAc Introduces **Jun Mao, MD, MSCE**



Photo Courtesy of the Society for Integrative Oncology

Brilliant and nurturing, Dr. Jun Mao's love for his patients and all people is obvious when you see his smile and hear him speak. Whether it's on ABC News' "Good Morning America" or just after he gave you a hug, you know you are in the company of a wonderful human being.

Dr. Mao is chief of the Integrative Medicine Service at Memorial Sloan Kettering Cancer Center in New York City. In addition to overseeing patient care, he also conducts research on the benefits of acupuncture and complementary therapies for people who are coping with cancer. He recently published an extensive NCCAOM/PDA-approved webinar, "Acupuncture for the Cancer Patient." This valuable 17-hour online program, available through the Memorial Sloan Kettering Cancer Center website, prepares licensed acupuncturists to safely care for cancer patients as they experience their treatment symptoms and side effects. <https://www.mskcc.org/departments/survivorship-supportive-care/integrative-medicine/programs/acupuncture>

After receiving a Bachelor's Degree in Chemical Engineering at the University of Illinois at Urbana-Champaign, he received his medical training at the University of Illinois, Chicago, and his MSCE from the Perelman School of Medicine at the University of Pennsylvania's Department of Epidemiology. Dr. Mao also studied at the Beijing International Acupuncture Training Center and the China Academy of Traditional Chinese Medicine. He received his Certification for Medical Acupuncture for Physicians from the UCLA/Helms Medical Institute.

With over 116 authored publications on PubMed/MEDLINE, Jun Mao is one of the most prolific researchers in the field of traditional Chinese medicine today. Dr. Mao's work has been funded by the National Cancer Institute, the National Center for Complementary and Integrative Health, the American Cancer Society, and the Patient-Centered Outcomes Research Institute.

We're very pleased and excited to present an interview with Dr. Jun Mao in the spring issue of MJAOM. He will discuss the past, present, and future of acupuncture research in the U.S.

For additional info:

PubMed <https://www.ncbi.nlm.nih.gov/pubmed/?term=Mao+JJ>

Advancing the Global Impact of Integrative Oncology <https://academic.oup.com/jncimono/article/2017/52/lgx001/4617816>

ASCO post articles on Rhodiola and Acupuncture for Management for Hot Flashes <http://www.ascopost.com/issues/september-25-2017/rhodiola/> <http://www.ascopost.com/issues/march-25-2017/acupuncture-for-the-management-of-hot-flashes/>

Nature reviews <https://www.nature.com/articles/nrc3822-c3>