Through the Eyes of an Advocate: The American Association for Cancer Research Conference

By Peg Ford

I arrived in Chicago the day before the start of the 103rd Annual Meeting of the American Association for Cancer Research (AACR), filled with anticipation. I was feeling very lucky to be selected again to participate in AACR's Scientist↔Survivor Program, whose goal is to build bridges and unity among the leaders of the scientific and cancer survivor and patient advocacy communities worldwide. After considerable prior communications, I was looking forward to finally meeting the advocates in my working group, as well as those in the other groups, as 27 advocates representing all different cancer disease tracks gathered at the first luncheon to prepare for the meeting. Waiting for us was the esteemed faculty of scientific researchers and mentors, ready to give of their time, energy, and experience to educate, assist, and guide us, as well as answer as many questions as we could fire at them.

Peg Ford in front of her poster presented at the AACR conference.

The credentials and influence of our group's scientific advisors was beyond amazing:

Jimmie C. Holland, MD (http://www.ipos-aspboa.org/bios/holland_ ipos.asp): Chairperson, Department of Psychiatry & Behavioral Sciences, Memorial Sloan-Kettering Cancer Center; Co-founder, International Psycho-Oncology Society and *Psycho-Oncology*. Dr Holland is thought of as the "mother of psycho-oncology."

Alex Adjei, MD, PhD, FACP (http://www.roswellpark.org/alex-adjei): Senior Vice President of Clinical Research, Professor and Chair, Department of Medicine, the Katherine Anne Gioia Chair in Cancer Medicine, Roswell Park Cancer Institute; Academic Scholar in Medicine, School of Medicine and Biomedical Sciences, State University of New York at Buffalo.

Barton A. Kamen, MD, PhD (http://www.youtube.com/watch?v=fwimWEjr6Y0 and http://www.youtube.com/watch?v=H2QiYrOvgRM): American Cancer Society Clinical Research Professor, Professor of Pediatrics and Pharmacology, Robert Wood Johnson Medical School.

Patricia S. Steege, PhD (http://ccr.cancer.gov/staff/staff.asp?profileid=5851): Head, Women's Cancers Section, Senior Investigator, Laboratory of Molecular Pharmacology, National Cancer Institute.

The meeting offered a range of special interest sessions covering a wide scope of important topics from which to choose, including Physical & Biological Sciences; Metastasis—Nature & Nurture; Patient-Scientist Partnerships in Personalized Medicine; Update—The Genome Atlas; and Tumor Microenvironment, all providing unequaled access to the impressive list of scientific researchers. From day 1, I was enthralled with the educational sessions, plenary sessions, meet-the-expert sessions, and poster sessions I was able to squeeze into my schedule, having to make hard decisions about which ones to attend as the meeting lived up to its theme: "Forging Partnerships to Accelerate Progress Against Cancer." It was particularly gratifying to participate with my fellow advocates in a poster session


Peg Ford at the AACR conference with Lee M. Ellis, MD, of the University of Texas M.D. Anderson Cancer Center.

where we proudly displayed our posters describing our advocacy efforts right alongside those of the researchers in the main poster section. One of the highlights for me was communicating with the crowd when I had the honor of having my poster viewed by some of the esteemed faculty, including Lee M. Ellis, MD, of the University of Texas M.D. Anderson Cancer Center; Laura Shawver, PhD, of the Clearity Foundation; Zhong-Qian Li, PhD, Principal Development Scientist at Fujirebio Diagnostics; and Lauren Pecorino, PhD, Principal Lecturer and Bioscience Programme Leader of the University of Greenwich School of Science in the United Kingdom, just to name a few.

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Because I am in training to participate in the FDA Patient Representative Program, I was drawn to hear updates on concepts in clinical trials. For example, I attended the meet-the-expert session presented by George W. Sledge, Jr, MD, entitled "Lessons From Clinical Trials of Targeted Therapy in Cancer,"[1] where I was inspired by his analysis of the next generation of clinical trials based on personal genome sequencing, real-time bioinformatics, increased collaboration, trial design focused around multitargeting, redesigned informed consent process (more user friendly), and different regulatory apparatuses. It is clear that we have entered the "Genomic Era," where, very shortly, mass production of sequencing will be available to all patients, who will then be able to present their USB flash drive to their physician; however, the key question, especially initially, will be whether the physician will be able to do something about the information.

The cutting-edge information presented at the conference boggled the mind with possibilities. For example, will it be possible to normalize tumor vessels for better reception of chemotherapy via the use of angiogenesis therapy to reach and open closed-off blood vessels and nonfunctional lymphatic vessels, thereby normalizing the tumor environment to improve therapeutic outcomes? As cancer can be a genetic disease, will genetic analysis covering all cancer disease tracks continue to affect how we study and treat cancer, moving us more toward personalized treatment for each patient?

I was able to view Zhong-Qian Li and colleagues' poster "Detection of Serum CYFRA 21-1 as a Biomarker for Stratification of Ovarian Cancer Risk of a Pelvic Mass," a nonprofit preliminary study by an industry company for the scientific community.[2] CYFRA 21-1 is a known lung cancer biomarker. This pilot study was designed to evaluate

serum CYFRA 21-1 as a biomarker for stratification of ovarian cancer risk in women with a pelvic mass. The subject demographics covered premenopausal women (median age, 43.3 years) and postmenopausal women (median age, 64.2 years). Results were encouraging, with serum ARCHITECT CYFRA 21-1 demonstrating a sensitivity of 76%, a specificity of 95%, a positive predictive value of 82%, a negative predictive value of 92%, and a likelihood ratio (+) of 14, with a cutpoint at 1.8 ng/mL. The authors concluded that serum CYFRA 21-1 appears to be a useful biomarker for stratification of ovarian cancer risk in women with a pelvic mass.[2]

I have the sense that we are getting close to revolutionizing cancer treatment and research.

In addition, I was delighted to attend a special session by Bart Kamen, MD, PhD, entitled "What Is Wrong With the Way We Deliver Chemotherapy?"[3] The opening remarks of his lecture "Metronomic Therapy: Is It Really a New Paradigm for Chemotherapy, or Simply Rediscovering the Wheel?" had me sitting straight up in my chair: "At some EFFECTIVE DOSE, TIME is the more significant variable in cell kill! Metronomic dosing schedule Rx involves dosing at constant intervals. It is an implied use of lower doses to minimize toxic side effects and eliminate the obligatory rest periods."[2] A move toward dosing at constant intervals (ie, metronomic therapy, or maintenance dosing) may be the new norm in chemotherapy treatment, rather than the optimal dose-schedule involving the maximally tolerated dose and dose-limiting toxicities. From my own personal severe adverse reaction to just 4 days of treatments on cycle 1 of chemotherapy, and from the unsettling experiences of other cancer survivors, is metronomic therapy indeed rediscovering a more gentle yet more effective approach to chemotherapy treatment?

Finally, can we reach the goal stated by the US Department of Health and Human Services Secretary, Kathleen Sebelius, to "…prescribe the right treatment, to the right person, at the right time…"? I wondered if we were closer to a breakthrough toward this goal when William Dalton, MD, PhD, of the H. Lee Moffitt Cancer Center & Research Institute, mentioned in his session the term *precision medicine*, where we can create a system to identify markers and molecular signatures and utilize clinical characteristics and molecular profiling to match the right person to the right drug.

With the privilege of attending and participating in AACR's Scientist↔Survivor Program this year, I felt an upsurge of excitement at the conference. One thing is certain: We advocates must continue to share with our legislative representatives and patient communities how important it is to continue funding research to support these efforts, as I have the sense that we are getting close to revolutionizing cancer treatment and research. ●

References

1. Sledge GW Jr. Lessons from clinical trials of targeted therapy in cancer. Presented at: American Association for Cancer Research Annual Meeting; March 31-April 4, 2012; Chicago, IL.
2. Li Z-Q, Smalley RJ, Glover CL, et al. Detection of serum CYFRA 21-1 as a biomarker for stratification of ovarian cancer risk in women with a pelvic mass. Presented at: American Association for Cancer Research Annual Meeting; March 31-April 4, 2012; Chicago, IL; Abstract 3574.
3. Kamen B. What is wrong with the way we deliver chemotherapy—metronomic therapy: is it really a new paradigm for chemotherapy, or simply rediscovering the wheel? Presented at: American Association for Cancer Research Annual Meeting; March 31-April 4, 2012; Chicago, IL.