Dear Friends and Supporters,

This issue of our newsletter focuses on our nurses and one of our great researchers. The nurses are the core of our clinical care and an integral piece to our care of patients. Shannon Mumenthaler, is highlighted in our researcher segment. Shannon has risen through the ranks as a post-doctoral fellow to now one of our newest faculty hires.

I am proud to work with all of the team at the Westside Cancer Center and Center for Applied Molecular Medicine. They are a special group who have dedicated their lives to helping others. We are all part of the Centers for two purposes, to care for patients with cancer and also to change the playing field. Together with our patients we hope to re-write the textbooks to develop new treatments for cancer. It is our obligation and privilege to do things differently and try to improve how we deal with cancer.

Recently I wrote a New York Times op-ed titled, “The Outrageous Cost of a Gene Test,” addressing an issue I feel is important to patients and impacts each of us in the US. Take a look and tell me what you think! http://goo.gl/L9B2C

With respect,

David

Keck School of Medicine of USC

Up Close with the Nurses of WCC

A strong, reliable, and compassionate nursing team is the key to our success. Lead by Justine Sosia, our nurse practitioner, the nurses at the USC Westside Cancer Center share their stories.

Justine Sosia, NP
Where are you from originally and what brings you to LA? I'm originally from the Gulf Coast of Florida. I moved to LA in 2006 to be closer to my sister and three nephews. I turned 30 in 2006 and thought if I don't move to California now, I never will.

What do you do in your spare time? I hang out with my dog Brody, a calm terrier, and spend time with my nephews. I love to travel around CA exploring new areas, I like turtles, and I enjoy doing yoga.

Why did you become a nurse? Nursing was in my blood. I come from a family of health professionals and was surrounded by medicine growing up. When I was 16, my grandpa (Pappy) got very ill with cancer. His male nurse, Nick, sang Don Ho’s Tiny Bubbles to him and it always put a smile on his face. I wanted to make those that were ill smile too.

If you were not a nurse, what would you be? I would be a veterinarian because I really love animals.

Robin Albertelli, RN
How long have you been at WCC? Since our move from Cedars in 2009, Justine recruited me after having worked together at Cedars and then I recruited Julie after working with her at Providence. We now have the perfect nursing team of experience, calm and passion.

What is your relationship with the patients like? I tend to get close to my patients. It is one of the reasons I love oncology nursing, kind of the good and the bad news. The bad news is that we see our patients so often due to the serious nature of their illness. The good news is that it allows us to form the deep bonds that I cherish as a nurse.

Why did you become a nurse? I began as a nursing assistant at the Motion Picture and Television Hospital. I loved caring for the geriatric population but questioned care at times and had little input as a CNA. I went back to school to get my RN so I could have a voice and be a stronger patient advocate.

What keeps you motivated in the workplace? I am primarily motivated by my patients. There is nothing that feels as good as a patient getting his first round of chemo and saying, “Thanks, that was better than I expected.” Some greet me in the lobby with a hug which means so much. We can’t expect our patients to like being here but we do have the chance to make them like it here. Our patients feel nurtured and they let us know that. That motivates me.

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Spotlight on Dr. Shannon Mumenthaler, PhD

Dr. Shannon Mumenthaler is our newest faculty member at CAMM. She was recently promoted to Assistant Professor of Research Medicine. Dr. Mumenthaler joined CAMM in 2008 as a post-doctoral fellow. She completed her Ph.D. training at UCLA where she employed traditional molecular and cellular biology techniques in her prostate cancer research. Four years ago, Dr. Mumenthaler became actively involved with the National Cancer Institute-sponsored Physical Sciences in Oncology Center (PS-OC) initiative instituted to combine physical and biological science techniques to explore critical issues in cancer. The PS-OC gave Dr. Mumenthaler a different perspective on biomedical sciences by providing an environment that brings together minds from diverse backgrounds to work as a team, challenge ideas, and generate novel approaches to fight cancer. As a result, Dr. Mumenthaler applies a multidisciplinary approach to her research program, partnering with mathematicians, engineers, and clinicians to better understand the evolutionary dynamics of tumor progression and drug resistance.

One of her projects investigates how cancer cells become resistant to therapy. In her work, Dr. Mumenthaler studies how drug resistant cells ultimately come to dominate a tumor (see Figure 1). She analyzes how a patient’s response to therapy is significantly impacted by the tumor composition and the selective forces acting on it. Dr. Mumenthaler is testing the theory that the tumor’s local microenvironment (e.g., nutrients, oxygen, drug, extracellular matrix, and interaction with adjacent non-tumor cells) is a major contributor to the heterogeneity observed in treated response. A helpful analogy is to think of the microenvironment as the “soil” and tumor cells as the “seeds”, where the goal is to disrupt the “soil” in order to make it difficult for the tumor cells, “seeds”, to grow or for drug resistance to develop.

Presently, Dr. Mumenthaler and her collaborators are developing a novel integrative framework that combines computational models with quantitative experimental measurements of tumor behavior using state-of-the-art imaging to help identify optimal treatment strategies to improve cancer care in the clinic. She believes that mathematical modeling is an integral tool that could potentially aid in advancing current treatment strategies and developing novel treatment paradigms.

When Dr. Mumenthaler is not in the lab, she enjoys spending time with her family in Montrose. This usually involves train activities, as trains are the ultimate entertainment for her 3-year-old son.

Fig. 1. Fluorescent images illustrate the evolution of drug resistance under treatment with a molecular targeted therapy (EGFR TK inhibitor). HCC827 drug sensitive cells (orange) and H1975 resistant cells (green) were mixed (left panel) and treated with erlotinib (right panel). The drug sensitive cells succumb to the treatment leaving behind the resistant cells to make up a majority of the tumor population. (Featured in: Mumenthaler, S.M.*, Foo, J.*, Leder, K., Choi, N.C., Agus, D.B., Pao, W., Mallick, P., Michor, F. Evolutionary Modeling of Combination Strategies to Overcome Resistance to Tyrosine Kinase Inhibitors in Non-Small Cell Lung Cancer. Mol Pharmacol, 86(2):2069-79, 2011.)

Up Close with the Nurses of WCC

Julie LaBarbera, RN

Where are you from originally and what brings you to LA? I’m originally from Montclair, New Jersey. My mom grew up in the Los Angeles area so as a child I visited my family here. I decided to make the move to LA during my last year of college. I had interviewed with UCLA Medical Center and was offered a position as a New Grad Nurse. I liked LA so much I decided to stay and ultimately found myself at USC working for Dr. Agus and Dr. Gross.

How long have you been at WCC and what do you like about your job? I’ve been here for three and a half years and there are many things I like about my job. What I enjoy most is interacting with amazing, compassionate people every day, both my coworkers and patients. I like that we are a small office because that enables me to spend more time getting to know my patients so that I can deliver the best care possible. I also believe in the research that Dr. Agus and Dr. Gross are doing. I’m proud to be a part of something that will change the way we approach cancer care and the way we treat our patients.

Why cancer? I have always been interested in the science and biology of cancer. I became a cancer nurse because oncology nursing encompasses a combination of clinical skills, critical thinking, and psychosocial support in a way I felt other areas of nursing did not. With new advances in medicine, my patients are living longer which allows me to really get to know them over time which I enjoy. I feel like I can deliver better care to my patients in that regard.

Help our team fight the war on cancer. Simply use the enclosed envelope to donate to the USC Center for Applied Molecular Medicine and USC Norris Westside Cancer Center or visit our website today. Thank you in advance, we appreciate it. Fight on! http://keck.usc.edu/donateWCC

Update: Dr. Agus was recently named a CBS News Contributor and will use his 20 years experience in science and medicine to report on a broad range of medical topics for the division’s broadcasts.