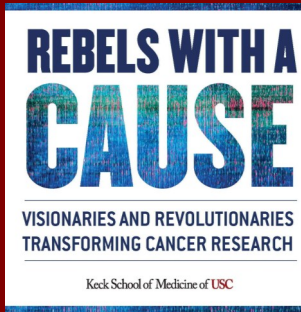


**USC Center for Applied Molecular Medicine and  
USC Norris Westside Cancer Center**



From left: Dr. David Agus, Neil Young, Tony Bennett & Dean Carmen Puliafito

**Dear Friends and Supporters,**

I had the privilege of sharing our first *Rebels With A Cause* gala with many of you last month. The event was fantastic and raised a total of \$3,675,000 for the USC Center for Applied Molecular Medicine and USC Westside Cancer Center research programs. The 160 guests were treated to a special performance by Tony Bennett, who brought the crowd to its feet with a medley of his classics including *I Left My Heart In San Francisco*, *The Best Is Yet To Come* and *Fly Me To The Moon*. Rock and Roll Hall of Famer Neil Young performed his hits including *Sugar Mountain*, *Heart of Gold* and *Long May You Run*. Emmy and Golden Globe award-winning actress/comedian Tracey Ullman emceed, adding her special brand of comedic talent to the event. We recognized two of the most impactful Rebels, whose work has great meaning to me personally and for our Center at USC. I am honored to work with and learn from these men, who are both my heroes: Murray Gell-Mann and Sumner Redstone. They are the quintessential Rebels, and we are all better for their ideas and work.

I look forward to sharing more events with each of you in the years to come. We announced at the event that we have begun the fundraising for a new research and clinical campus on the Westside of Los Angeles. I will update you soon on the details of this exciting new project.

Again, thank you all for your help and support in fighting cancer, I am honored that you choose to be a part of our cause.

**To your health,**



**David B. Agus, MD**

**Keck School of  
Medicine of USC**

**Future Rock Stars of Science**

Over the past three years, the CAMM lab has recruited talented and motivated high school students to partake in our Jr. Fellows program. The goal of the program is to immerse Jr. Fellows in an



Jr. Fellows from left: Christine, Alyssa, Dr. Agus, & Alex

intellectually rich environment that highlights the challenges facing medical oncologists and researchers today. The Jr. Fellows spend several weeks at the CAMM lab learning various techniques which they then use to develop treatment strategies for their mock patient. Prior to the conclusion of the program, the Jr. Fellows are given a private tour of the medical clinic and discuss their findings with Dr. Agus. Graduates of this program have successfully transitioned to USC, University of St. Andrews, and the combined Bac-M.D. program at Pitzer College. We are proud of their accomplishments. The Jr. Fellows program will begin accepting applications in Spring with a tentative start date of July 8, 2013.

**Barry Dukoff Artwork**

**1941-2011**

At age 24, Barry became one of the youngest directors of photography in the business. He worked with clients both nationally and internationally winning numerous prestigious awards including the Clio, Addy New York, Addy Los Angeles, The Belding, Golden Mobius and the Venice Film Festival.

Barry was armed with the knowledge that photographs provide perspective at a point in time that has been overlooked. Barry said, "Sometimes I wonder if I am capturing the moment or if the moment is capturing me." Barry was a creative and generous man who was kind enough to entrust our clinic with a few of his masterpieces. He felt everyone should have something beautiful to look at when they are facing a difficult time in their life. We honor Barry's story and will cherish his memory through his beautiful artwork in our clinic.



Nurse Julie LaBarbera at the USC Westside Cancer Center with one of Barry's memorable photos.

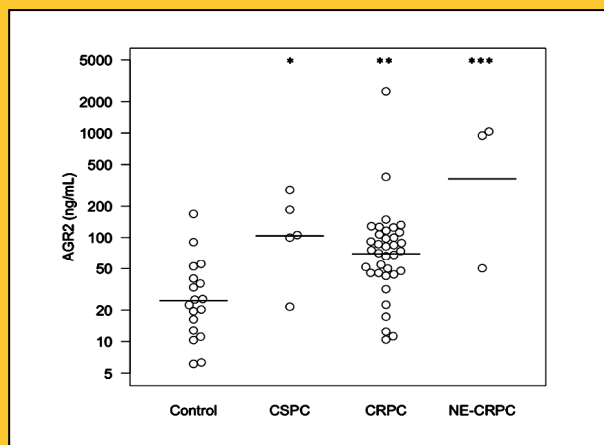


## Spotlight on Kian Kani, PhD

Prior to joining CAMM in 2007, Dr. Kani spent five years focused entirely on the role of one prominent cancer protein by traditional molecular biology techniques. His research was highly acclaimed and continues to be cited today. However, at a one-protein-at-a-time pace, the thousands of other proteins in a cell would take an eternity to study. A systems biology approach would be better suited to study a disease such as cancer. As a result, Dr. Kani was motivated to incorporate leading-edge proteomic techniques in order to simultaneously study all of the proteins in a cancer cell at CAMM. The mission as outlined by Dr. Agus was simple – discovery of biomarkers which would enable physicians to better identify treatment options and monitor therapeutic response. A significant challenge especially because no single clinically approved biomarker had ever been discovered by proteomics.

Over the past five years, Dr. Kani has implemented a systems approach to quantitatively enumerate protein patterns associated with therapy intervention in various solid tumors with proteomic technologies. The groups' most recent success was the identification of a novel biomarker in prostate cancer. This protein, AGR2, is elevated in the blood of patients with metastatic prostate cancer. In particular, we discovered that AGR2 expression is associated with neuroendocrine, or, anaplastic prostate cancer, exemplified by an aggressive clinical phenotype (Figure 1).

Figure 1. AGR2 protein levels are elevated in metastatic prostate cancer patients. Abbreviations: Castrate sensitive prostate cancer (CSPC), Castrate resistant prostate cancer (CRPC), and neuroendocrine (NE). Circles represent individual patient samples. Bars indicate median levels of AGR2 concentration in each population.



This work will be featured in the *Prostate Journal*. In the coming months, the focus of Dr. Kani's research will be on the investigation of the role of AGR2 and other potentially important biomarkers. We are seeking private and public funding to continue this effort.

One of the unique aspects of the WCC and CAMM is the natural synergy that exists when clinicians and researchers combine to tackle medical challenges. In this case, the investment in a technology platform, such as proteomics, enabled Dr. Kani to make a novel discovery with his systems biology approach. The ability to validate the *in vitro* experiments with patient samples obtained by Drs. Gross and Agus at the WCC is a testament to this synergy. The willingness of our patients to contribute biological samples for research is paramount and the nexus of this synergy. Although we remain far removed from the first FDA approved clinical biomarker identified by proteomics, we remain diligently on task.

Dr. Kani resides in Western Heights with his wife and two sons. His free time is split between restoring their Tudor revival and volunteering as a basketball coach in several city leagues. His favorite movie is Warren Beatty's *Heaven Can Wait* and his secret foible is a chocolate croissant.

## Team WCC and CAMM



The entire team at our summer picnic

We are grateful every day for our patients, community and donors who help support and fund our cutting-edge cancer research. If you are interested in helping our team fight the war on this terrible disease, please use the enclosed envelope and donate to the USC Center for Applied Molecular Medicine and USC Norris Westside Cancer Center. You can also donate on our website. Thank you in advance, your generosity is greatly appreciated. *Fight on!*

[http://www.doctorsofusc.com/wcc\\_donate](http://www.doctorsofusc.com/wcc_donate)

## Tips To Prevent Cancer David B. Agus, MD

- 1) Eat real food.
- 2) Avoid vitamins, supplements, and other "short cuts" to health like juicing.
- 3) Discuss aspirin and statins with your doctor.
- 4) Participate in the prescribed cancer screening programs.
- 5) Don't sit for long periods of time and move often throughout the day.
- 6) Maintain a lean body mass and wear comfortable shoes.
- 7) Avoid tobacco products.
- 8) Prevent sunburns.
- 9) Keep a regular schedule 365 days a year.
- 10) Get a yearly flu shot and remember to get your booster shots.

For more great tips and health guidance get your copy of the #1 New York Times bestseller *The End of Illness* by Dr. David B. Agus today.

