Gala celebrates USC Norris’ 40 years of progress

By Sara Reeve

The USC Norris Comprehensive Cancer Center has made tremendous advances in the understanding and treatment of cancer during its four decades of existence. At the gala anniversary celebration, “40 Years of Progress – Discovering New Cures,” held on Oct. 11, USC Norris leaders, researchers and supporters came together to honor that advancement.

“This is a very special night for us. We are here to recognize 40 years of movement toward the goal that Ken Norris Jr. set to end cancer as we know it,” said Carmen A. Puliafito, MD, MBA, dean of the Keck School of Medicine of USC.

Top Right: Actor-comedian Martin Short was the master of ceremonies for the gala.

Top Left: USC Norris presented the Founders Award to the Kenneth T. and Eileen L. Norris Foundation, and the Visionary Award to alumnus and supporter Ming Hsieh and his wife Eva. Left to right: Stephen Gruber; Ming and Eva Hsieh; Harlyne Norris and Lisa Hansom of the Norris Foundation; actor Martin Short; and Keck School Dean Carmen A. Puliafito.

Bottom Right: Stephen Gruber (left) with James Watson, who discovered the structure of DNA, and USC Norris faculty researcher Peter Jones (right), who pioneered the field of epigenetics.

Bottom Left: Five hundred USC Norris guests gathered at the Westin Bonaventure Hotel to celebrate the cancer center’s 40th anniversary in style.

The celebration, which raised nearly $2 million to support cancer research at USC Norris, was held at the Westin Bonaventure Hotel in Los Angeles, and attracted 500 guests. Actor-comedian Martin Short served as master of ceremonies, captivating the audience with his witty banter and his personal connection to the cancer center.

“Like so many in this room, I am here for so many reasons,” Short said. “I am here for my wife, Nancy, my mother, Olive, my friend, Nora Ephron, and for so many of those who have left us far too early because of cancer. But in the aftermath of these terrible losses, I think we all come to realize that we are not hopeless victims. … We know that USC Norris Comprehensive Cancer Center has some of the most brilliant scientists, most dedicated researchers and gifted physicians on the planet.”

The event acknowledged the illustrious past of USC Norris and the tremendous advances made in the fight against cancer, hinting of an even brighter future. Past cancer center directors G. Denman Hammond, MD, Brain Henderson, MD, and Peter Jones, PhD, DSc, were recognized for their accomplishments.

Special guest James Watson, PhD, recipient of the 1962 Nobel Prize in Medicine for the discovery of DNA structure, and Jones, distinguished professor of urology and biochemistry & molecular biology at the Keck School, renowned for his work in epigenetics, were applauded as “the fathers of modern genetics and modern epigenetics.”

In honor of the anniversary, two awards were inaugurated to recognize outstanding leadership. The

Hoag/USC partnership establishes new comprehensive cancer program

Keck Medicine of USC has announced a new partnership with Hoag Memorial Hospital Presbyterian in Orange County to establish new cancer and oncology services at the Hoag Family Cancer Institute and, eventually, other locations in Orange County.

The new Hoag/USC partnership marries Orange County’s largest community cancer program with the strengths of USC Norris Comprehensive Cancer Center. The latest collaboration between the two leading medical centers promises to enhance patient care and services by significantly expanding cancer research and treatment — including advanced clinical trials — in Orange County.

“This partnership is tremendously exciting,” said Tom Jackiewicz, MPH, senior vice president and CEO of USC Health. “We’re joining the best of academic medicine with the best of private practice, working together to make sure that the care close to home is the best possible, and also to ensure that the cutting-edge, advanced care and clinical trials at USC Norris are also accessible. Local is better for the patient, hands down. This partnership ensures that the best care will be delivered locally whenever possible, while also offering treatment at Keck Medicine of USC if needed.”

The new cancer and oncology services program is the latest — and undoubtedly the most significant — in a series of successful partnerships between Hoag and USC aimed at combining the resources and talent of both respected organizations, which have been collaborating on ways to better serve the health care needs of the region since 2000.

“This represents a durable partnership in an area of strength for both USC and Hoag,” said Shawn Sheffield, MBA, MHA, chief strategy and system development officer for USC’s medical enterprise, who played an integral role in affiliation negotiations, along with Darcy Spicer, MD, division chief of Cancer Medicine and Blood Disease, and others. “As we build on respective core competencies, later phases will be much more concrete, but this is an important initial step.”

John Ferrelli, who was recently hired as chief administrative officer of USC Norris Cancer Hospital, will manage the ongoing affiliation with Burton L. Eisenberg, MD, who has been hired as the executive medical director of the cancer program. Eisenberg will be based at Hoag and comes from the Dartmouth-Hitchcock Norris Cotton Cancer Center, where he served as deputy...
USC researcher reveals how to better master stem cells’ fate

By Cristy Lytal

USC scientist Qi-Long Ying, PhD, MSc, and a team of researchers have long been searching for biotech’s version of the fountain of youth — ways to encourage embryonic stem cells (ESCs) and epiblast stem cells (EpiSCs) to endlessly self-renew, or divide to produce more stem cells.

In a pair of studies published in Nature Communications in September and in The EMBO Journal in August, Ying and his team revealed some of the ways that ESCs and EpiSCs retain their pluripotency, or ability to differentiate into virtually any kind of cell.

The studies in Nature Communications identified a novel way of culturing human ESCs by focusing on the Wnt/beta-catenin signaling pathway — a group of molecules that work together to control various cell functions, including some related to embryonic development. According to the researchers, this pathway can prompt mouse EpiSCs and human ESCs to either self-renew or differentiate. When the protein beta-catenin remains within the cell cytoplasm but outside of the nucleus, the stem cell continues to self-renew. When beta-catenin moves into a stem cell’s nucleus, differentiation begins.

The study published in The EMBO Journal addresses mouse ESCs, which are derived from the embryo at an earlier stage and are more pluripotent than mouse EpiSCs. The study revealed the important role of Tfp2l1 — a transcription factor or protein that controls which genes are turned on and off in a cell. In mice, Tfp2l1 helps communicate to ESCs that they should self-renew. The transcription factor also shows promise for “re-winding” slightly more differentiated EpiSCs into the more naive ESC state.

By learning more about the ESC and EpiSC playbooks, Ying and his colleagues can better control stem cell self-renewal, offering hope for patients with currently untreatable diseases and creating potential for a wide variety of other applications.

“These new findings have allowed us to develop conditions for the efficient propagation of human ESCs, and might also enable us to establish pluripotent stem cells from different species,” said Ying, associate professor of stem cell biology and regenerative medicine at the Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at USC. “This has far-reaching implications for a variety of applications ranging from manipulating agricultural animal genomes to developing stem cell-based therapies for ailments such as Parkinson’s disease or spinal cord injuries.”

The California Institute for Regenerative Medicine (CIRM) New Faculty Award II (RN2-00938-1) provided some of the support for both studies, and the CIRM Scientific Excellence through Exploration and Development (SEED) Grant (RN2-00327-1) provided additional funding for the work published in Nature Communications.
Being a good neighbor can help HEAL a local community

By Sara Reuse
Q: Can USC staff and faculty help to transform the food environment of Los Angeles?
A: Yes, if they contribute to the USC Good Neighbors Campaign.

The Community Youth Health Education and Action Leaders (HEAL) program teaches youth in the Boyle Heights area about urban agriculture and healthy food choices. A partnership between the USC Norris Comprehensive Cancer Center’s Patient Education and Community Outreach Center and Proyecto Jardin Community Garden, HEAL received a new grant of $45,000 in June 2013 from USC Neighborhood Outreach (UNO), funded by the Good Neighbors Campaign.

“HEAL is not only teaching about urban agriculture and transforming land into a food source for the local communities, but also how to impact policies and demand access to fresh, healthy food in their communities (schools, local stores, homes and community agencies),” said Zul Surani, program manager for community outreach and partnerships at USC Norris. “This approach impacts the whole community eventually by making healthier choices, easier choices.”

The program is recruiting 10 youth members and one peer youth crew supervisor to participate in a 12-week institute that teaches skills to help the participants lead the development of a sustainable community food system.

GALA: Passion for curing cancer celebrated

Continued from Page 1

Founder’s Award was presented to Harlyne Norris and Lisa Hansen of the Kenneth T. and Eileen L. Norris Foundation.

“We can think of no finer recipient than the family whose name we share,” said Stephen G. Gruber, MD, PhD, MPH, director of the cancer center. “Our history could not have been written — and thousands of lives would not have been saved — without the Norris family’s passion and commitment to advancing cancer research and treatment.”

The inaugural Visionary Award was presented to USC alumnus and benefactor Ming Hsieh and his wife Eva. A self-made entrepreneur from China, Ming Hsieh is the founder of Pasadena-based Cogent, Inc. In 2010, the Hsiehs made a transformational gift to USC to establish the Ming Hsieh Institute for Engineering Medicine for Cancer. “With remarkable insight and a deep desire to help people, the Hsiehs clearly envision the day when USC will bring science, engineering and nanotechnology together with medicine to vastly improve outcomes and eventually conquer cancer.”

To close out the event, Academy Award-winning singer-songwriter Randy Newman charmed the crowds.

The gala celebration was part of a larger public campaign to accelerate the strides USC Norris is making against cancer. This campaign is one component of the $1.5 billion Keck Medicine Initiative, which is part of the $6 billion Campaign for the University of Southern California.

USC, UCLA get $2M to develop stroke center network in Southland

By Mark Wheeler

Stroke is the second leading cause of death in Los Angeles County. To cut those numbers, it’s imperative that new treatments be developed and refined for stroke prevention, acute therapy and recovery after stroke.

Now, a three-way partnership between the USC Comprehensive Stroke and Cerebrovascular Center at Keck Medicine of USC, the UCLA Stroke Center at Ronald Reagan UCLA Medical Center, and UC Irvine has been awarded a $2 million grant from the National Institute of Health to address these three stroke priorities.

Together, the three universities will form the Los Angeles–Southern California Regional Coordinating Center, which will marshal a network of 49 acute stroke and rehabilitation medical centers throughout Los Angeles and Orange counties. Combined, these centers will perform five to 10 stroke-related clinical trials that will examine ways to improve prevention and enhance therapies and recovery. Within this network, 12 working groups with expertise in specific neurovascular research will facilitate the implementation of these trials and serve as a resource to the Regional Coordinating Center’s leadership and the individual sites.

Keck Medicine of USC and Ronald Reagan UCLA Medical Center will jointly lead the center.

“This research network is built upon the robust foundation of two decades of cooperative clinical care and clinical trials in cerebrovascular disease in Southern California,” said Jeffrey Saver, MD, director of the UCLA Stroke Center and a professor of neurology. “The close collaboration of all three academic medical centers in the region represents a natural and important evolution of our extensive past collaborations.”

The Regional Coordinating Center will have three fundamental aims:

• To perform high-quality trials of promising stroke therapies throughout Los Angeles and Orange counties.
• To ensure the participation of more individuals from underserved populations in the trials, including women, Hispanics, African-Americans, and members of other minority populations.
• To educate and encourage fellows, residents, medical students, premedical students and junior faculty to engage in stroke translational research.

To receive the NIH award, the three institutions were required to demonstrate that they have clinical science excellence, specialized expertise in stroke management, a strong background in stroke research and a proven ability to recruit stroke patients. Each is characterized by strong collaborative relationships between vascular neurology, emergency medicine, interventional neuroradiology, neurosurgery, neurointensive care, neuroimaging, stroke rehabilitation and pediatric neurology.

“With this proven expertise, we will be able to offer every eligible patient the opportunity to participate in a trial conducted through the network,” said Gene Sung, MD, MPH, an assistant professor of neurology and chief of the division of neurocritical care and stroke at the Keck School of Medicine of USC.

All participating stroke centers have committed to increasing clinical research data value through data sharing, and the division of neurocritical care and stroke at the Keck School of Medicine of USC.

The partnership between USC, UC Irvine and UCLA will mean better regional care for stroke patients.

The grant will also provide seed funding to start a community garden near the newly established Wellness Center at the historic Los Angeles County hospital building.

The USC Good Neighbors Campaign, the university-wide faculty and staff fundraising effort, supports community organizations affiliated with the university and located in the neighborhoods surrounding the Health Sciences and University Park Campuses. Nearly $14 million in UNO grants have been awarded to community programs since the campaign’s inception in 1993.

“UNO grants help us take our science to the streets!” said Surani. “We need a way to speed up this process of putting what works into circulation through a caretaker and cultural adaptation. The Patient Education and Community Outreach Center at USC Norris has trusted and seamless partnerships with communities because of its cultural expertise and leadership it provides in community applications of research. Leveraging UNO funds has helped us ensure that all our communities benefit equally from advances here at Norris. It’s a matter of equity for us to ensure that members of our community just living across the street from us benefit from our work.”

The 2013 campaign runs through Oct. 31, with strong participation being crucial to reaching this year’s goal of $1.7 million. For more information or to make a donation to the Good Neighbors Campaign, visit http://goodneighbors.usc.edu.
Calendar of Events

Find updated Calendar information online! Visit www.theweekly.usc.edu every Friday and search on "HSC Weekly Calendar."

Saturday, Oct. 26
7:30 – 11 a.m. Free Pancake Breakfast to benefit USC Nor- ris Breast Cancer Research. Sponsored by Fork in the Road Foundation/Pasadena Colorado Mall, voluntary donations ac- cepted. Pasadena College, Garfield Promenade, 200 E. Colorado Blvd., Pasadena. Info: (626) 644-3327, ph@forkinthepa.com
4:30 p.m. Bloomington’s Sherman Oaks “Fashion Presenta- ting” fashion show. 10 percent of purchases will be donated to USC breast cancer research programs. New View – Sherman Oaks. RSVP: (818) 325-2230

USC breast cancer research programs. New View – Sherman Oaks on 2 at Bloomington’s Sherman Oaks, 14900 Riverside Dr., Sherman Oaks. RSVP: (818) 325-2230

Tuesday, Oct. 29
Noon – 1 p.m. Cancer Center Grand Rounds. “Cancer Burden by Ethnicity: The Multicultural Cohort Study” Brian Henderson, USC. Aresty Auditorium Webcast: jackmedmca- usc.edu/medicina/Catalog/catalogs/NormGR.aspx

Noon – 1 p.m. Faculty Development. “Motivating Learners,” Julie Nyquist, Jane Rosenfield, USC. Keith Administration Building (KAM) 206. Info: (323) 442-2372, meded@med.usc.edu

Noon – 1 p.m. Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at USC. “When Genomes Collide, Dr., Sherman Oaks. RSVP: (818) 325-2230

USC breast cancer research programs. New View – Sherman

Noon – 1 p.m. Faculty Development. “Designing STEM-type Exam Questions,” Cha-Chi Fung, USC. Keith Administration Building (KAM) 206. Info: (323) 442-2372, meded@med.usc.edu

Tuesday, Oct. 30
Noon – 1 p.m. Faculty Development. “Small Group Discussions,” Dixie Fisher, Win Min, Cha-Chi Fung, USC. Keith Administration Building (KAM) 206. Info: (323) 442-2372, meded@med.usc.edu

Noon – 1 p.m. Eli and Edythe Broad Center for Regenerative Medicine and Stem Cell Research at USC. “Understanding of the way organisms,” he said.

In the third phase, the team will compare simulations of tumor growth with actual patients with outcome data from these patients.

The USC Norris Comprehensive Cancer Center has sponsored a host of activities in October to celebrate the 40th anniversary of its founding as one of the eight original National Cancer Institute Comprehensive Cancer Centers.

MORRIS KNOWLEDGE (top) Simon Gayther, PhD, professor of preventive medicine, shares his insights on ge- nomic epidemiology with attendees of the symposium: “Genomic Cancer Medicine: The Power and the Promise” on Oct. 11 at Aresty Auditorium. The symposium was part of the USC Norris 40th anniversary celebration.

TROJAN PRIDE (bottom) Marilyn Norris (third from left), USC trustee and past chair of the Kenneth T. and Eileen L. Norris Foundation, and her daughter, Lisa Hansen (second from left), chair of the Norris Foundation, were saluted at the football game on Oct. 10 against the University of Arizona for their sup- port of the Cancer Center. Pictured with Norris and Hansen are Stephen B. Grubler, MD, PhD, MD, PhD, director of the cancer center (left) and USC President C.L. Max Nikias (right), PhD.

By Leslie Ridgeway

USC researchers to grow organs to unlock how cancer tumors develop

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Using this three-dimensional organ creation, Keck Med-icine of USC research- ers aim to discover clues to metastatic cancer growth by developing a first-ever integrated bioengineered/computational model of metastatic colon cancer.

David B. Agus, MD, di- rector of the USC Center for Applied Molecular Medicine and professor of medicine at the Keck School of Medi- cine of USC, is the principal investigator of a $2.3 million, four-year “ Provocative Questions” grant awarded recently by the National Cancer Institute (NCI), a division of the National Institutes of Health (NIH).

The goal of the research is to develop functional, bioengineered liver “organoids” in which colon cancer tumors can be grown and studied, Agus said. The research team will inject the liver organoids with cancer cells and watch as the cells grow into tumors and function within the organ- oids. The research combines bioengineering techniques developed at Wake Forest University with computational models of tumor growth developed at USC.

“Studying cancer metasta- sis in the lab is problematic because of discrepancies between cell culture models and tumor growth in liv- ing organisms,” he said.

“We need a much better understanding of the way cancer cells and the organ microenvironment interact. Our research merges the methods of physical science, regenerative medicine and tissue engineering to create a tissue model that approxi- mates the actual environment where tumors live.”

The liver models will have value to other cancer researchers seeking to attack tumor growth from different angles, said Shananton Mumenthaler, PhD, assis- tant professor of research in the Department of Medicine at the Keck School and one of the project’s leads.”

“This exciting and novel reproducible, controllable system will also enable researchers to test hypotheses and make predictions that can be extrapolated to human cancer,” Mumenthaler said.

The first phase of the project involves calibrating the model with data from bioengineered liver tissue. Phase two will subject the growing tumors to physical changes likely to affect them in the human body, including alterations to oxygenation and drug treatment.

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