



Matthias Hebrok

FROM THE DIRECTOR Fighting Diabetes Through Innovation

When I was recently asked for the one word that best describes the Diabetes Center, I emphatically stated “innovation.” Our accomplished team of diabetes researchers and clinicians are continuously advancing diabetes research and patient care – and serving as role models for others throughout the world.

In this newsletter, you will learn about a number of our most recent innovations. UCSF is establishing a new academic minor in diabetes nursing, which will serve as a model for the nation. Our Madison Clinic for Pediatric Diabetes is creating a new paradigm for pediatric, adolescent, and young adult patient care. Furthermore, one of our first grantees of the UCSF Diabetes Family Fund for Innovative Patient Care, Education, and Scientific Discovery reports on

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NEW DIABETES NURSE FELLOWS PROGRAM

Diabetes Minor Among the First in the Country

An epidemic is sweeping the nation and world: diabetes. Almost 26 million children and adults in the United States – and 346 million worldwide – have the disease. Another 79 million Americans are considered to have pre-diabetes.

Now, thanks to a generous \$1.5 million gift from a member of the Diabetes Center Leadership Council who has a child with diabetes, UCSF will be among the first in the country to educate and train nurses specifically to care for diabetes patients across their lifespan by establishing a new academic minor in diabetes at the UCSF School of Nursing.

“With increasing rates of obesity and an aging population, we need to train more nurses who can help patients manage the disease in a very knowledgeable way,” says UCSF’s

Kit Chesla, RN, PhD, FAAN, professor, diabetes researcher, and Shobe Endowed Chair in Ethics and Spirituality.

The Madison Clinic Peggy Huang Diabetes Nurse Fellows Program will prepare advanced practice nursing students to sit for qualification exams in order to become nationally board certified in advanced diabetes management (BC-ADM). As such, they will help patients manage their diabetes from both medical and behavioral perspectives. For example, the nurses might adjust patients’ medication regimens, and help those who are struggling with their diets to set realistic goals and develop concrete plans for adopting healthier lifestyles.

The minor’s inaugural cohort of three to six students will enroll in the spring

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Members of the UCSF Madison Clinic for Pediatric Diabetes Saleh Adi and Colette O’Brien work with nursing student Dara Nunn to check on a patient with diabetes.



Be Empowered: Sign Up for a Diabetes Teaching Center Course Today

Numerous classes are held throughout the year for adults with type 1 diabetes through UCSF's award-winning Diabetes Teaching Center. Take a look at what others are saying about this ADA-accredited educational program:

"I enjoyed the course and will continue to benefit from my time in class. This program will go a long way in improving my quality of life."

"Thank you for all the information. The presentations were very informative and the practice exercises helped reinforce the tools I learned."

"This course was very informative. I don't feel as lost and alone in treating and managing this disease."

For more information on upcoming diabetes classes, call 415/353-2266 or visit <http://dtc.ucsf.edu/workshops-and-classes>.

From the Director

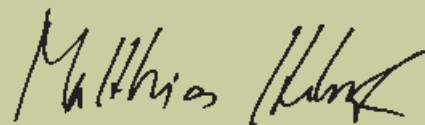
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its progress in raising awareness of the growing threat of diabetes in our adolescents.

As another year concludes, I continue to feel enormous pride for all that we have accomplished together. It is only because of you – our donors and supporters – that we have been successful in creating one of the most respected diabetes centers in the world. As we continue on our path to create new, more effective treatments for type 1 and type 2 diabetes, I remain grateful for our ongoing partnership.

On behalf of our dedicated team of faculty and staff, I wish you and your loved ones a healthy and happy holiday season.

Sincerely,



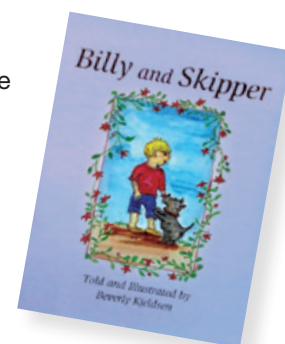
Matthias Hebrok, PhD
Director, UCSF Diabetes Center
Hurlbut-Johnson Distinguished Professor
in Diabetes Research

Children's Book Proceeds to Fund UCSF Diabetes Research

A dedicated Diabetes Center supporter has captured the tale told by her grandmother well over a half century ago in a new children's book, *Billy and Skipper*. This delightful story is filled with love of family, adventure, problem solving, and forgiveness – all to benefit one of the Diabetes Center's research pioneers, Michael German, MD.

The Justine K. Schreyer Chair of Diabetes Research, German is the associate director and clinical director of the UCSF Diabetes Center, director of the UCSF/NIH Diabetes Research Center, and director of the Diabetes, Endocrinology and Metabolism Fellowship Program. In 2010, he and his research team discovered a serotonin pathway in the insulin-producing beta cells that may lead to new ways to promote beta cell regeneration in patients with type 1 or type 2 diabetes. German also sees patients, teaches medical students, and lectures at the UCSF Diabetes Teaching Center.

Priced at \$10 per book, all proceeds from the sale of *Billy and Skipper* will benefit the German Lab. To purchase a copy, make checks payable to the UCSF Foundation, Fund #B3056, and mail them to UCSF, PO Box 45339, San Francisco, CA 94145-0339.



From left: Youth Speaks poet Joshua Merchant; home page of The Bigger Picture campaign

UCSF DIABETES FAMILY FUND SPOTLIGHT

Public Health Literacy Partnership Between UCSF's Center for Vulnerable Populations and Youth Speaks

In May 2011, the UCSF Diabetes Center Diabetes Family Fund for Innovative Patient Care, Education, and Scientific Discovery awarded its first grants to 12 groups of collaborators. As a special feature, we will spotlight these groups and their progress in our newsletter. In this issue, we are featuring The Bigger Picture (TBP) campaign between UCSF's Center for Vulnerable Populations (CVP) and the community-based arts and youth organization, Youth Speaks (YS).

The purpose of this partnership is to increase the health literacy of minority youth around the diabetes epidemic. It showcases the very talented voices of minority youth in California to raise awareness and instigate social action regarding the environmental and socioeconomic inequities that drive the diabetes epidemic – and disproportionately affect youth, their families, and their communities.

The campaign includes well-produced, hard-hitting spoken-word public service announcements (see examples at <http://tinyurl.com/TBPCampaign>), and school assemblies and workshops across Bay Area public high schools. In addition, an online competition and digital mapping tool encourage broad viewing and participation. All of these efforts combine to reflect the realities that exist across California's hardest hit communities. Unlike other diabetes prevention efforts, TBP shifts the focus from encouraging individual behavioral change to the societal forces that perpetuate obesity and diabetes.

The partnership urges youth to transform their environment and take charge of improving their own lives. Informed and engaged minority youth, powered by social media, can be forceful engines to ferment policy change aimed at the drivers of early diabetes.

MADISON CLINIC PEGGY HUANG DIABETES NURSE FELLOWS PROGRAM

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of 2013. (The classes are also open to any other UCSF nursing student with an interest in the field.) These pioneering students will begin by taking three courses: one each on advanced clinical management of type 1 and type 2 diabetes in children and adults, and one on the behavioral aspects of diabetes management. They will then complete clinical rotations in the UCSF Madison Clinic for Pediatric Diabetes, the UCSF Justine K. Schreyer Adult Diabetes Care Center, or other family practice and community clinics that treat a significant number of patients with diabetes.

Both the curriculum and clinical training are interprofessional ventures between the Schools of Medicine and Nursing. While the program is directed by the School of Nursing, pediatric diabetes physicians Saleh Adi, MD, and Steve Gitelman, MD – both of whom are leaders in the Madison Clinic for Pediatric Diabetes – will teach some elements of the curriculum and help train nurses in the clinic. “This is just the latest example of the collaborative spirit among the basic research, clinical



From left: Chair of the Department of Family Health Care Nursing Linda Franck, diabetes researcher Kit Chesla, longtime UCSF nurse and certified diabetes educator Peggy Huang, for whom the new diabetes minor was named, and UCSF School of Nursing Dean David Vlahov

“We thank our very generous donor for stimulating and supporting this program. It will be a model for the nation.”

– UCSF School of Nursing Dean David Vlahov

research, and patient care programs that make up diabetes at UCSF,” says Matthias Hebrok, PhD, director of the UCSF Diabetes Center.

The donor’s gift also provides scholarships for three students – the Peggy Huang Fellows – pursuing the minor per year. Both the scholars and the program are named for longtime UCSF nurse, certified diabetes educator,

and co-founder of the UCSF Diabetes Teaching Center, Peggy Huang, RN, CDE.

“We thank our very generous donor for stimulating and supporting this program,” says UCSF School of Nursing Dean David Vlahov, PhD, RN. “It really represents a launch pad for advancing nursing and interprofessional education and practice. It will be a model for the nation.”

Madison Clinic Moves to Mission Bay

Nearly two years ago, we received a transformational donation that empowered us to create one of the premier pediatric diabetes clinical care centers in the country, the Madison Clinic for Pediatric Diabetes at UCSF.

This fall, we moved the Madison Clinic to UCSF’s new Mission Bay campus to create a world class facility that provides state-of-the-art care through individualized and comprehensive management with emphasis on education, outreach, and the use of advanced technologies. It is also

committed to advancing research to help generate new treatments to improve the quality of life for our young patients.

In his role as medical director of the clinic, Saleh Adi, MD, has led the expansion of the clinical team. Highly accomplished clinicians have joined the Madison Clinic to provide integrated services and a seamless patient experience to children, adolescents, and young adults. Recent additions include clinical psychologist Korey Hood, PhD, adult/pediatric endocrinologists Robert Long, MD, and Srinath Sanda, MD,

and skilled practice manager Theresa Garner, APRN, BC-ADM, MSN, CDE.

Adi and his colleagues have also created a new transition program to support teens and young adults as they progress from a pediatric to an adult model of care. “As our young patients navigate this often challenging period in their lives, our team will provide targeted support to meet their unique needs,” says Adi. “We are excited that our vision for the Madison Clinic will be realized to improve the quality of life of children with diabetes.”

From left: the Madison Clinic is now located at 1500 Owens Street on UCSF’s Mission Bay campus; the clinic’s medical director, Saleh Adi, greets guests at the opening celebration; signage in the clinic’s waiting room



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Learn more about our clinical trials in diabetes:
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Take advantage of our free educational program for Bay Area employers:
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NEWS

from the
Diabetes Center
at UCSF

WINTER 2012/2013

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SHINYA YAMANAKA RECOGNIZED FOR STEM CELL DISCOVERY

Gladstone and UCSF Scientist Wins 2012 Nobel Prize in Medicine

Shinya Yamanaka, MD, PhD, a senior investigator at the Gladstone Institutes – which is affiliated with UCSF – won the 2012 Nobel Prize in Physiology or Medicine for his discovery of how to transform ordinary adult skin cells into cells that, like embryonic stem cells, are capable of developing into any cell in the human body.

Yamanaka shares the prize with John B. Gurdon of the Gurdon Institute in Cambridge, England. The prize was awarded for the scientists' "discovery that mature cells can be reprogrammed to become pluripotent."

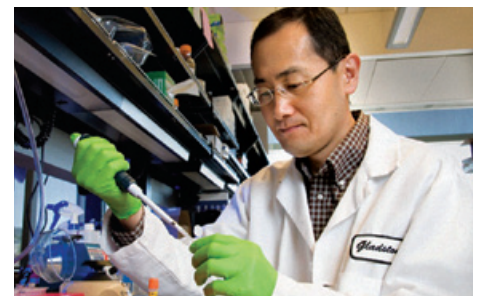
Yamanaka, who works in both San Francisco and Kyoto, is also the director of the Center for iPS Cell Research and Application (CiRA) and a principal investigator at the Institute for Integrated Cell-Material Sciences (iCeMS), both at Kyoto University. The former orthopedic surgeon trained in biomedical research at Gladstone in the 1990s, before returning to

San Francisco in 2007 as a Gladstone senior investigator and a UCSF anatomy professor.

Six years ago, Yamanaka discovered that by adding just four genes into adult skin cells in mice, he could induce the cells to become like embryonic stem cells. He called them *induced pluripotent stem cells*, or iPS cells. In 2007, he announced that he had done the same with human adult skin cells.

Embryonic stem cells – which are "pluripotent" because they can develop into any type of cell – hold tremendous promise for regenerative medicine, in which damaged organs and tissues can be replaced or repaired. Many in the science community consider the use of stem cells to be key to the future treatment and eradication of a number of diseases, such as diabetes, blindness, and Parkinson's disease.

But the use of embryonic stem cells has long been controversial – which is one reason why Yamanaka's discovery



Shinya Yamanaka

of an alternate way to obtain human stem cells, without the use of embryos, is so important.

"Dr. Yamanaka's work exemplifies the potential of basic research to transform our understanding of human cell and molecular biology, and to use this knowledge to work toward the development of treatments for currently intractable diseases. He has opened up a whole new field of discovery, and our scientists are working hard to advance the research," says UCSF Chancellor Susan Desmond-Hellmann, MD, MPH.