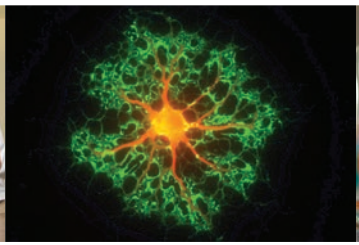
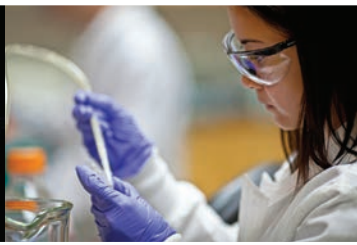
Program for Breakthrough Biomedical Research

15th Anniversary Celebration

IN MEMORY OF MARION O. SANDLER

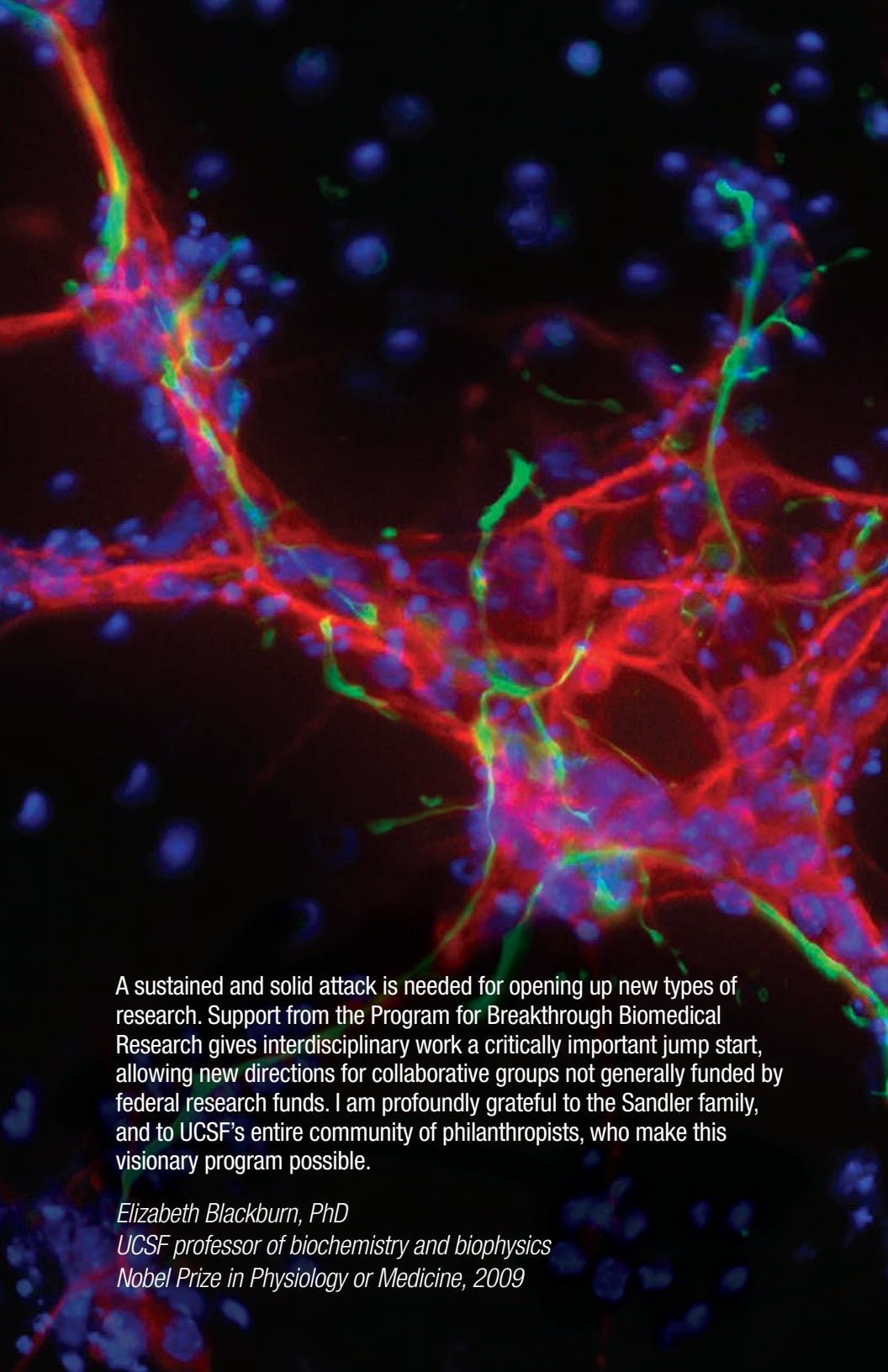




Unconventional Wisdom:

Advancing scientific discovery by breaking the rules

MAY 23, 2013

UCSF
University of California
San Francisco
advancing health worldwide™



A sustained and solid attack is needed for opening up new types of research. Support from the Program for Breakthrough Biomedical Research gives interdisciplinary work a critically important jump start, allowing new directions for collaborative groups not generally funded by federal research funds. I am profoundly grateful to the Sandler family, and to UCSF's entire community of philanthropists, who make this visionary program possible.

Elizabeth Blackburn, PhD
UCSF professor of biochemistry and biophysics
Nobel Prize in Physiology or Medicine, 2009

Today, no other program in the world supports scientists like the Program for Breakthrough Biomedical Research (PBBR). A beacon for the most courageous among UC San Francisco investigators, PBBR uses private philanthropy to fund only those ideas that challenge conventional wisdom and could never qualify for funding from increasingly conservative grant sources like the National Institutes of Health. This unique program dares our scientists to dig deeper, ask tougher questions, and invent novel approaches that defy the status quo. Please join us in celebrating the scientists and supporters who have made PBBR's success possible.

EVENT PROGRAM

OPENING REMARKS

Keith Yamamoto, PhD
Director, Program for Breakthrough Biomedical Research
Executive Vice Dean, UCSF School of Medicine
UCSF Vice Chancellor for Research

UNCONVENTIONAL WISDOM: ADVANCING SCIENTIFIC DISCOVERY BY BREAKING THE RULES

A CONVERSATION MODERATED BY

Michael Krasny, PhD
Host, KQED Forum

FEATURING PANELISTS

Joseph DeRisi, PhD
Professor, UCSF Department of Biochemistry and Biophysics
Howard Hughes Medical Institute Investigator, 2004 MacArthur Fellow

Susan Desmond-Hellmann, MD, MPH
UCSF Chancellor, Arthur and Toni Rembe Rock Distinguished Professor

Alfred Gilman, MD, PhD
Regental Professor Emeritus, UT Southwestern Medical Center
Nobel Prize in Physiology or Medicine, 1994

Anita Sil, PhD, MD
Associate Professor, UCSF Department of Microbiology and Immunology
Howard Hughes Medical Institute Early Career Scientist

VIDEO TRIBUTE IN MEMORY OF MARION O. SANDLER PBBR FOUNDING PHILANTHROPIC PARTNER

REMARKS

Herbert M. Sandler

Co-Founder, Sandler Foundation

CLOSING

Chancellor Desmond-Hellmann

RECEPTION TO FOLLOW

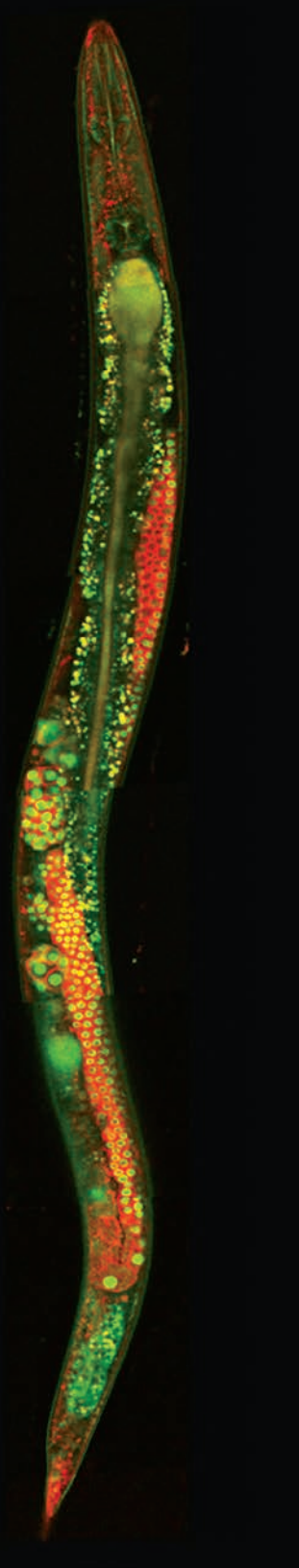
The Program for Breakthrough Biomedical Research provides a model for how to empower scientists to take calculated risks and reach for the stars, enabling them to make the transformative discoveries that are the real engines of scientific advance. It is a much needed antidote to the current research funding mechanisms that reward conservative research and avoid risk-taking, and penalize young investigators. As a grateful recipient of one of the program's grants back in the late 90s, I applaud UCSF for preserving and expanding this important funding mechanism.

Marc Tessier-Lavigne, PhD
The Rockefeller University president and head of the Laboratory of Brain Development

Many of the most important scientific discoveries were initially met with disbelief and even scorn. In such cases, philanthropic support is often critical so that scientists on the verge of a breakthrough can continue their work. The world needs more fearless researchers who won't take "no" for an answer.

There are far too many people ready to tell young scientists to give up on a new idea because it seems too ambitious, unproven, or audacious. Bold ideas are the very endeavors that the Program for Breakthrough Biomedical Research cherishes. UCSF is fortunate to have visionary funders like the Sandler family and others who understand the importance of high-risk research that can flourish when given the right support. For this reason, PBBR provides much more than just funding for our faculty – it also provides an even scarcer resource: scientific freedom.

Stanley Prusiner, MD
UCSF professor of neurology
Director, Institute for Neurodegenerative Diseases
Nobel Prize in Physiology or Medicine, 1997



MODERATOR

Michael Krasny, PhD

Michael Krasny, PhD, is host of KQED's award-winning Forum, a news and public affairs program that concentrates on the arts, culture, health, business, and technology. Since 1970, Dr. Krasny has been a professor of English at San Francisco State University and is a widely published scholar and critic, as well as a former regular contributor to Mother Jones magazine and a fiction writer. Dr. Krasny has interviewed many of the leading newsmakers and cultural icons of our time, including Saul Bellow, former President Jimmy Carter, Cesar Chavez, Noam Chomsky, Francis Crick, John Kenneth Galbraith, Newt Gingrich, Jane Goodall, V.S. Naipaul, Rosa Parks, Robert Redford, Salman Rushdie, Carl Sagan, Susan Sontag, Gloria Steinem, and Archbishop Desmond Tutu.

He is the recipient of many awards and honors, including the SY Agnon Gold Medal for Intellectual Distinction, the Eugene Block Award for Human Rights Journalism, the Inclusiveness in Media Award from the National Conference for Community and Justice, and a Koret Foundation Fellowship. He has also been named best talk show host by Focus magazine, a number of Bay Area newspapers, the San Francisco Publicity Club, and Citysearch. Dr. Krasny received his BA (cum laude) and MA degrees from Ohio University, where he is a member of Phi Beta Kappa, and his PhD degree from the University of Wisconsin.

PANELISTS

Joseph DeRisi, PhD

Joseph DeRisi, PhD, is a professor and vice chair of the Department of Biochemistry and Biophysics, and a Howard Hughes Medical Institute Investigator. He employs an interdisciplinary approach to his work, combining genomics, bioinformatics, biochemistry, and bioengineering to study parasitic and viral infectious diseases in a wide range of organisms. Dr. DeRisi was one of the early pioneers of DNA microarray technology and whole genome expression profiling, and is nationally recognized for his efforts to make this technology accessible and freely available. Today, he uses this approach to study the activity of the full range of malaria genes and has generated provocative insights in many emerging viral diseases. In 2004, he was chosen for a MacArthur Fellowship for his development of the technology that was used to identify the SARS virus. In addition to being the first Sandler Fellow at UCSF, a Searle Scholar, and a Packard Fellow, Dr. DeRisi has received the Heinz Award in Technology, the Economy, and Employment, and was named an Eli Lilly and Company Research Award Laureate. He received a BA in biochemistry and molecular biology (1992) from the University of California, Santa Cruz, and a PhD in biochemistry (1999) from Stanford University.

Susan Desmond-Hellmann, MD, MPH

Susan Desmond-Hellmann, MD, MPH, became the ninth Chancellor of UCSF in August 2009. An oncologist and renowned biotechnology leader, Dr. Desmond-Hellmann holds the Arthur and Toni Rembe Rock Distinguished Professor appointment at UCSF. Prior to joining UCSF, she spent 14 years at Genentech. From 2004-2009, she served as president, Product Development. In this role, she was responsible for Genentech's pre-clinical and clinical development, process research and development, business development, and product portfolio management. Dr. Desmond-Hellmann is the recipient of numerous honors and awards. In November 2009, Forbes magazine named her one of the world's seven most "powerful innovators," calling her "a hero to legions of cancer patients."

She was listed among Fortune magazine's "top 50 most powerful women in business" for seven years and, in 2010, was inducted into the American Academy of Arts and Sciences and elected to the Institute of Medicine. In March 2013, Dr. Desmond-Hellmann was appointed to the board of directors of Facebook, Inc. She also serves on the board of directors of Procter & Gamble, on the board of directors of the Albert and Mary Lasker Foundation, and as a trustee of the Howard Hughes Medical Institute. Dr. Desmond-Hellmann completed her clinical training at UCSF and is board-certified in internal medicine and medical oncology. She holds a master's degree in public health from the University of California, Berkeley.

PANELISTS

Alfred Gilman, MD, PhD

Alfred Gilman, MD, PhD, was born in New Haven, Connecticut in 1941. He received his BS (summa cum laude) in biochemistry in 1962 from Yale University, and his MD and PhD in pharmacology in 1969 from Case Western Reserve University. He completed his postdoctoral training in the Laboratory of Biochemical Genetics at the National Institutes of Health (1969-71). In 1971, Dr. Gilman began a 10-year stay at the University of Virginia in Charlottesville. His positions in the Department of Pharmacology included assistant professor (1971-73), associate professor (1973-77), and professor (1977-81). In addition, he was director of the Medical Scientist Training Program (1978-81). Dr. Gilman became chairman of the Department of Pharmacology at the University of Texas Southwestern Medical Center at Dallas in 1981. He was named a Regental Professor in 1995. Dr. Gilman discovered, characterized, and purified a set of guanine nucleotide-binding regulatory proteins termed G proteins, for which he won a 1994 Nobel Prize. His observations provided for the first time a firm molecular basis for understanding certain signal transduction processes present throughout nature. He was also the primary editor (in 1980, 1985, and 1990) of the best known textbook of pharmacology, Goodman and Gilman's *The Pharmacological Basis of Therapeutics*. In 2004, Dr. Gilman was named dean of Southwestern Medical School. In addition, in 2006 he became executive vice president for Academic Affairs and provost of the University of Texas Southwestern Medical Center. Dr. Gilman retired from UT Southwestern in 2009 to assume the position of chief scientific officer of the Cancer Prevention and Research Institute of Texas, a position he held until 2012.

Anita Sil, PhD, MD

Anita Sil, PhD, MD, began her academic career as a Harvard University undergraduate, studying biochemistry and working in the laboratory of Jack Strominger. She then followed in her family's footsteps by entering medical school at the University of Michigan, but became enamored with the idea of pursuing a PhD at UCSF after a transformative summer research experience in the laboratory of Harold Varmus. Dr. Sil took a leave of absence from medical school after her second year, and completed a PhD with Ira Herskowitz in UCSF's Tetrad graduate program, which offers diverse training in the Departments of Biochemistry and Molecular Biology, Cell Biology, Developmental Biology, and Genetics. She then completed her MD at UCSF and immediately started her own lab as a Sandler Fellow studying the basic biology of the fungal pathogen Histoplasma capsulatum. Dr. Sil joined the UCSF faculty in the Department of Microbiology and Immunology in 2003, where she continues to investigate how eukaryotic pathogens respond to environmental stimuli and colonize mammalian hosts. She is also a Howard Hughes Medical Institute Early Career Scientist.

A TRIBUTE TO

Today's program honors the memory of Marion O. Sandler, a pioneering businesswoman and philanthropist, who passed away on June 1, 2012. Marion and her husband Herb have been two of UCSF's greatest friends and supporters. Guided by Marion's bold and pioneering spirit – and her profound business acumen – the Sandler Foundation has donated more than $100 million to UCSF, including the Program for Breakthrough Biomedical Research, our groundbreaking neuroscience research and clinical care, innovative asthma research, and much more. Patients everywhere have benefited from the Sandlers' generosity and passion for improving human health.

Marion Sandler grew up in Bidderford, Maine, the youngest of five children and the only daughter. She graduated Phi Beta Kappa from Wellesley College in 1952, attended the Harvard Radcliffe Program in Business Administration, and earned her MBA from New York University in 1958. Marion was the first woman to win the Money Marketeers Marcus Nadler Award and the first woman executive hired at Dominick & Dominick, Inc., a 90-year-old brokerage and investment banking firm known as the "Tiffany of Wall Street." She was one of only two women in professional jobs working on Wall Street.

Marion and Herb were married in 1961 and moved to California in 1963 in their early 30s, with Marion convinced they could run

Congratulations to the Sandler Foundation for 15 years of support of the outstanding Program for Breakthrough Biomedical Research at UCSF. Advances ranging from innovation in drug development to fundamental biology have resulted from this initial discretionary support. This "seed" fund has leveraged millions of dollars from other sources to create one of the leading and most vibrant research communities in the world. Such excellence requires thoughtful, engaged philanthropists like yourselves.

Philip Sharp, PhD, Massachusetts Institute of Technology professor,
Koch Institute for Integrative Cancer Research
Nobel Prize in Physiology or Medicine, 1993

MARION O. SANDLER

their own savings and loan more effectively than others. For 43 years, the Sandlers served as husband and wife CEOs of Golden West Financial Corporation, which grew from a tiny company to become the second largest savings and loan in the country. Golden West was a risk-averse residential mortgage portfolio lender that kept its loans on its own books, had the lowest loan losses in the industry over a 40-plus year period, and achieved an unparalleled earnings record. Golden West was named Fortune magazine's most admired savings institution seven times, and Morningstar named the Sandlers as CEOs of the Year in 2004. Marion was among the first women CEOs of a Fortune 500 company and the longest serving.

Sandler Foundation, established in 1991, rigorously researches opportunities and makes strategic general philanthropic investments to support exceptional individuals and institutions. In addition to its support of UCSF, the foundation has helped launch ProPublica, Center for American Progress, Center for Responsible Lending, American Asthma Foundation, and UC Berkeley Center for Equitable Growth. The foundation has catalyzed the expansion and/or improved operating capacity of many nonprofits, including the ACLU, Center on Budget and Policy Priorities, Human Rights Watch, MDRC, Oceana, PLoS, and a center that designs innovative ways to provide high-quality health care at lower cost.

Advising the Sandlers was easy, because their hearts and minds were already in the right place, with excellence as the first and foremost criterion for awards. All I had to do was to convince them that it was their good fortune to live in a community that housed one of the finest medical schools in the world. It was also helpful to remember not to wear socks with holes in them when attending dinners at their beautiful residence.

Alfred Gilman, MD, PhD
UT Southwestern professor emeritus of pharmacology
Nobel Prize in Physiology or Medicine, 1994

The Sandler Foundation is doing an excellent job supporting high quality biomedical research at UCSF. It focuses on the quality of the individual and the originality of the research proposal, the twin pillars needed for research excellence. It is really important to have engaged, committed philanthropists supporting outstanding activities such as this.

Paul Nurse, PhD
President, Royal Society
Chief Executive and Director, Francis Crick Institute
Nobel Prize in Physiology or Medicine, 2001

The Sandlers stand out to me for their willingness to support risky, creative science that doesn't fit into ready-made categories. More importantly, they accomplish this by supporting scientists at all stages, from postdoctoral fellows to senior investigators. Many philanthropic organizations nowadays seek tight control of research projects, but the Program for Breakthrough Biomedical Research gives scientists the freedom to develop their ideas and take new directions that emerge over the course of their investigations. I believe that this is why UCSF scientists have produced so many great discoveries – the return on the Sandlers' investment has been enormous.

Huda Y. Zoghbi, MD
Howard Hughes Medical Institute Early Career Scientist
Baylor College of Medicine professor,
Jan and Dan Duncan Neurological Research Institute at
Texas Children's Hospital director

Simply put, the PBBR Program at UCSF is doing extremely well. UCSF is the jewel in the crown of American medicine. It is the greatest medical center in the country if not in the world...you could not be supporting any institution more worthy or more important to the national effort in biomedical sciences.

Eric Kandel, MD
Columbia University professor of neuroscience
Co-Director, Mind Brain Behavior Initiative
Howard Hughes Medical Institute Senior Investigator
Nobel Prize in Physiology or Medicine, 2000

The Sandler family's vision and commitment to support breakthrough biomedical research at an institution capable of living up to that trust reveals a wisdom and appreciation of what it takes to improve human health and eliminate disease.

Paul Berg, PhD
Stanford University School of Medicine professor emeritus of biochemistry
Nobel Prize in Chemistry, 1980

The risk-taking research that fuels biomedical innovation is presently in peril. Private philanthropy represents our best hope to thwart this peril. The inspired and rigorous generosity of the Sandler family has set a pathbreaking example for others to follow.

J. Michael Bishop, MD
UCSF Chancellor Emeritus
UCSF professor of microbiology and immunology
Director, The G.W. Hooper Foundation
Nobel Prize in Physiology or Medicine, 1989

World-changing scientific discoveries, by definition, cannot be specified in advance. How, then, can society support scientists who offer no guarantee of success? The answer is to pick brilliant scientists, back them to the hilt, and hold them accountable for what they produce. Governments cannot take this risk. Far-sighted private investors like the Sandlers can. Their investments pay rich rewards, not to themselves, but to all humanity.

Michael S. (Mike) Brown, MD
UT Southwestern professor of molecular genetics and internal medicine
Nobel Prize in Physiology or Medicine, 1985