

New Boost for Cure Research

SEVEN TEAMS OF LEADING SCIENTISTS RECEIVE amfAR GRANTS TOTALING NEARLY \$1.5 MILLION

Building on momentum generated by the two-year-old amfAR Research Consortium on HIV Eradication (ARCHE), amfAR announced a third year of funding that will help seven research teams accelerate their groundbreaking work. Total funding for these new grants was nearly \$1.5 million.

“We’re thrilled that ARCHE is working as we had hoped it would. It’s helping us, collectively, make great strides in our understanding of how to potentially eradicate HIV,” said amfAR CEO Kevin Robert Frost. “As an increasing number of prominent researchers are proclaiming that they, too, believe a cure is possible, amfAR is proud to continue to be at the forefront of cure research.”

A series of studies by Dr. Sarah Palmer of the Swedish Institute for Infectious Disease Control and Karolinska Institute is building on an intriguing finding made during year two of ARCHE: the discovery of identical clones of latent virus. Dr. Palmer is working with Dr. Frederick Hecht of the University of California at San Francisco to understand how such clones might arise and what they mean for efforts to rid the body of the virus. Dr. Daniel Douek of the National Institutes of Health is also applying his expertise on T cells to help explain the findings.

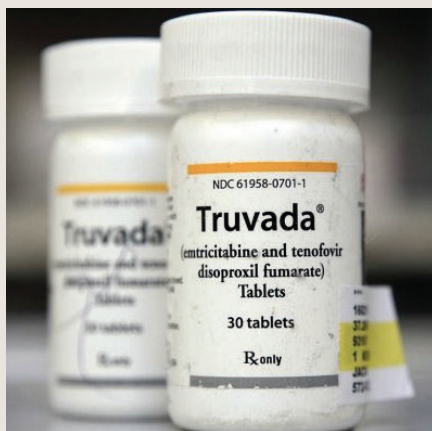
One of the principal strategies being investigated to cure HIV involves using drugs that can activate HIV out of a latent state, allowing it to be targeted by antiretroviral therapy (ART).

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FDA Approves Truvada as Pre-Exposure Prophylaxis (PrEP)

DECISION BASED ON TRIALS SHOWING THAT THE ONCE-DAILY PILL CAN SIGNIFICANTLY REDUCE THE CHANCES OF ACQUIRING HIV



In July, the U.S. Food and Drug Administration (FDA) approved use of the antiretroviral drug Truvada as an option for HIV prevention. The decision followed a recommendation in May by an advisory panel to the agency, which said that Truvada, already approved for HIV treatment, is also a safe and effective means of preventing infection in sexually active adults. The drug, manufactured by Gilead Sciences Inc., was studied in several major trials that demonstrated the once-daily pill, when taken consistently, significantly reduces the chances of acquiring HIV.

“Now that the FDA has approved Truvada as part of a comprehensive approach to reduce HIV infection rates in the U.S. and globally, we need to quickly determine how we’re going to incorporate it into our prevention strategies and goals,” said amfAR CEO Kevin Robert Frost. “We know that Truvada, when taken as directed, works. Now we need to figure out how to properly use it to change the course of the epidemic.”

The FDA approved use of Truvada for people who are at the highest risk of sexually

CONTINUED ON PAGE 3

Turning the Tide Together



As you will read in this issue of *Innovations*, cure-focused AIDS research is gathering steam and taking us in some intriguing new directions. For five years Timothy Brown—the “Berlin Patient”—has enjoyed the distinction of being the only person known to have been cured

of HIV. amfAR-funded research is now producing tantalizing evidence that we may be getting closer to additional instances of patients being cured. With each case, we will gain vital new knowledge that, we hope, will enable us to turn a trickle of cured infections into a steady stream.

Of course, many scientific challenges remain before we can talk meaningfully about curing large numbers of people. Through carefully targeted research grants and fellowships, and collaborative efforts such as the amfAR Research Consortium on HIV Eradication (ARCHE), we are addressing these challenges as rapidly as we can. In the meantime, we must focus our prevention resources on those

groups of people who are most vulnerable to HIV infection. And we must make effective use of all the tools and strategies at our disposal—not just some of them. That must include support for syringe exchange programs, provision of condoms, voluntary male medical circumcision, and expanded access to antiretroviral drugs.

The International AIDS Conference in July helped to reenergize AIDS advocates around the world. Complementing the “Action Agenda to End AIDS” released by amfAR and AVAC in advance of the conference (see page 7), we look forward to the road map for achieving an AIDS-free generation that Secretary of State Hillary Clinton has promised to deliver by World AIDS Day. Ultimately, however, road maps and strategies are of little value without the sustained political will and commitment of resources necessary to put them into action. Please urge your elected officials to commit to achieving an AIDS-free generation.

Thank you for your support!

Kevin Robert Frost
Chief Executive Officer

INNOVATIONS

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The Potential Impact of Sequestration

The Budget Control Act of 2011 charges Congress with reducing the federal deficit by \$1.2 trillion over the next decade. The bipartisan Joint Select Committee on Deficit Reduction, established under the Act, failed to propose a plan to reduce the deficit by an agreed upon deadline, resulting in an enforcement mechanism of automatic budget cuts in both defense and non-defense spending. The enforcement mechanism is termed “sequestration” and is currently U.S. law.

In an issue brief released in October, amfAR examines the potential human impact of budget sequestration on the response to the domestic HIV/AIDS epidemic, and provides an analysis of how HIV-positive minority populations in the U.S. will be harmed by sequestration. According to the issue brief:

- 15,700 people, 65% of whom are people of color, would lose access to lifesaving antiretroviral drugs through the AIDS Drug Assistance Program (ADAP).
- 2,100 fewer households would receive permanent housing assistance and 2,900 fewer households would receive short-term or transitional housing assistance through the Housing

Opportunities for Persons with AIDS Program (HOPWA). Nearly 60% of these households include at least one person of color.

- Funding for AIDS research at the National Institutes of Health (NIH) would be reduced by \$252 million—the equivalent of 460 AIDS research grants.
- \$64.7 million would be cut from the Centers for Disease Control and Prevention’s (CDC) HIV prevention programs, substantially undercutting efforts to deliver HIV testing and prevention services nationwide.

“Were sequestration allowed to go into effect,” said amfAR Vice President and Director of Public Policy Chris Collins, “it would seriously undermine our country’s ability to accomplish National HIV/AIDS Strategy goals to lower HIV incidence, increase care access, and reduce health disparities.” ■

Read the issue brief at www.amfar.org.

The National HIV/AIDS Strategy at Two

BEGINNINGS OF REFORM, AND A GLIMPSE OF SUCCESS

By Chris Collins

On the second anniversary of this country's first comprehensive National HIV/AIDS Strategy, it's worth thinking about what has gone right, and where we go next.

The Strategy changed—and in a way, restarted—the conversation on HIV in the United States. With it came a whole string of reforms—some of them demonstrating real political courage, like greater emphasis on serving people at the center of the epidemic, including gay men and African American and Latino men and women; rechanneling money to more closely follow the epidemic; calling on states to undo senseless criminalization laws; and redirecting prevention money to have tangible impact on overall HIV infection rates.

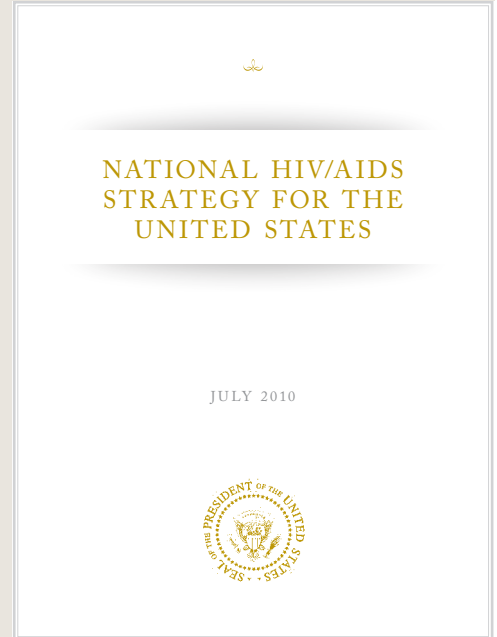
The original principles of the National HIV/AIDS Strategy movement remain critically important, but the context has changed significantly. Today it's less about calling for improved federal coordination, and more about challenging every level of government to build an effective response that we now know is possible.

In Massachusetts, for example, Medicaid was expanded to cover people living with HIV in 2001, and in 2006 the state enacted health reform legislation achieving more than 98 percent health insurance coverage of its residents by 2010. HIV infection rates have fallen sharply—by

45 percent between 2000 and 2009. The state is fortunate to have many accessible community health centers, providers who are comfortable delivering quality HIV care to people most likely to be affected, and support services like housing, nutrition, and transportation. Evidence-based harm reduction programs such as syringe exchange are in place. In many areas of the state, it's okay to be gay. All this means that people have a reason to get an HIV test; if they are positive they know they can get care and be treated respectfully.

Achieving the National HIV/AIDS Strategy goals is going to require more examples like this, though of course each setting will be different. The federal government has to set the incentives to drive local success, but there is no substitute for local and state leadership. It is at the local level where decisions can be made to scale up HIV testing and treatment access, create comfortable health care environments, and match resources with the realities of the epidemic. State participation in expanded Medicaid is a top priority.

In addition, the federal government needs to increase funding for AIDS programming and implement health reform so that it serves people with chronic health conditions including HIV. If the federal government clearly emphasizes a few



measures such as testing rates, linkage to and retention in care, and viral load, it can focus efforts at the state and local level.

Five years after the movement for a National HIV/AIDS Strategy started, we can be far more specific about what is needed. And we can be confident that we can make great progress against the epidemic at home. ■

Chris Collins is Vice President and Director of Public Policy at amfAR. This is excerpted from an article that originally appeared on The Huffington Post on July 12, 2012.

Truvada CONTINUED FROM PAGE 1

acquired HIV infection, a group that includes gay men and black women. This is the first time the agency has approved a drug for preventing HIV infection.

"Today's approval marks an important milestone in our fight against HIV," said FDA Commissioner Margaret A. Hamburg, M.D. "Every year, about 50,000 U.S. adults and adolescents are diagnosed with HIV infection, despite the availability of prevention methods and strategies to educate, test, and care for people living with the disease. New treatments as well as prevention methods are needed to fight the HIV epidemic in this country."

As part of a coalition of AIDS advocacy organizations, amfAR called on the FDA earlier this year to approve Truvada as PrEP,

and, in testimony before the advisory panel, emphasized the need for demonstration projects to determine how PrEP can be used for optimal public health impact. The coalition has called on the government to immediately enact policy measures and education initiatives to ensure those who could most benefit from PrEP have access to it.

"We need to use multiple combined approaches to bring HIV incidence down in the U.S. and globally," said Chris Collins, amfAR's Vice President and Director of Public Policy. "While our ultimate goal is to find a cure for HIV, PrEP offers us a tool we can use today to prevent new infections among those most at risk." ■

A Cure for HIV/AIDS: Recent Breakthroughs and New Research Frontiers

amfAR BRIEFING HIGHLIGHTS ADVANCES AND CHALLENGES IN CURE RESEARCH

“Eradicating AIDS and finding a cure is the moonshot of our generation,” said Dr. Susan Blumenthal, Senior Policy and Medical Advisor at amfAR and former U.S. Assistant Surgeon General, who organized and moderated an amfAR-sponsored Capitol Hill briefing on HIV cure research in Washington, D.C., this summer.

With these words, Dr. Blumenthal brought to a close an engrossing program that had begun with renowned broadcast journalist Judy Woodruff interviewing Timothy Brown, the “Berlin Patient,” the first person known to be cured of HIV. While on treatment for HIV, Brown was diagnosed with leukemia in 2006. For the stem-cell transplant he needed, his physician, Dr. Gero Hütter, was able to locate a donor among the one percent of people born with a genetic mutation making them resistant to HIV. People in this group lack the CCR5 receptor, which is the primary means by which most strains of HIV infect cells.

Following the transplant, Mr. Brown was able to stop HIV treatment without experiencing a return of his HIV and he no longer tests positive for the virus. His case provides the first proof of concept for a cure for HIV and has been the impetus for scientists and donors to begin working together toward a research goal once thought impossible.

amfAR has been funding cure research for more than a decade, and in 2010 launched the amfAR Research Consortium on HIV Eradication (ARCHE). As Dr. Rowena Johnston, the Foundation’s Vice President and Director of Research, said during the briefing, “We will leave no stone unturned. The strength of the amfAR model is to bring researchers together to exchange ideas.”

During the briefing, a panel of four scientists discussed their research. Three-time ARCHE grantee, Dr. Robert Siliciano of Johns Hopkins University School of Medicine, is studying ways to force latent HIV that is lying dormant in cells to become active so that it can be targeted by antiretroviral therapy. Dr. Siliciano has already identified several drugs that could potentially be used to reactivate latent virus and is looking for additional, more powerful options (see page 11).

Dr. Keith Jerome of the Fred Hutchinson Cancer Research Center in Seattle is working to perfect a technique called gene editing, which uses an enzyme to find and remove the genetic sequence of HIV that has inserted itself into a cell’s own DNA or the protein it uses to enter the cell, leaving the cell HIV free. “What we need,” he said, “are enzymes that cleave what we want.”

Some elements of the immune system’s response to HIV, Dr. Peter Hunt of the University of California in San Francisco,



Drs. Paula Cannon, Keith Jerome, Peter Hunt, and Robert Siliciano

explained, lead to detrimental effects on the heart and other organs as it wears them out prematurely, leading to chronic conditions such as heart disease. He theorizes that we need to find ways to modulate the immune system’s response to HIV so that it can delay the onset of AIDS, as well as minimize the side effects of an overly active immune system.

Dr. Paula Cannon, of the Keck School of Medicine of the University of Southern California, is leading efforts to eliminate HIV from the body by removing the CCR5 receptor from a patient’s own stem cells. Without this receptor, the virus can no longer infect cells and dies off.

Dr. Jerome Zack of the UCLA Center for AIDS Research and Chris Collins, amfAR’s Vice President and Director of Public Policy, discussed the issue of funding for cure research. Support for scientific research in general is threatened. Last year, when a bipartisan Congressional committee failed to agree on a plan to achieve \$1.2 trillion in deficit reductions, an enforcement mechanism was triggered that will result in across-the-board spending cuts via sequestration.

Unless it is voted down by Congress this fall, sequestration will take \$252 million out of AIDS research by flat-funding the National Institutes of Health. “If this were a business,” said Collins, “now is not the time to divest.” ■



amfAR Board Member Regan Hofmann, Dr. Paula Cannon, and Timothy Brown, the “Berlin Patient,” at amfAR’s Capitol Hill briefing

A Blueprint for an AIDS-Free Generation

SECRETARY CLINTON ANNOUNCES AN INITIATIVE FOR KEY POPULATIONS AND A “ROAD MAP” FOR THE FUTURE OF HIV PROGRAMS

In a July plenary at the XIX International AIDS Conference, Secretary of State Hillary Clinton announced that she will release by World AIDS Day 2012 a blueprint to create an AIDS-free generation. She views this blueprint—the development of which will be led by U.S. Global AIDS Coordinator Dr. Eric Goosby—as a “road map” detailing the United States’ role in fighting HIV now and in the future.

“We want the next Congress, the next Secretary of State, and all of our partners here at home and around the world to have a clear picture of everything we have learned and a road map that shows what we will contribute to achieving an AIDS-free generation,” said Clinton.

Key populations

Secretary Clinton also pledged more than \$35 million to focus on key populations—including sex workers, injecting drug users (IDUs), and men who have sex with men (MSM)—by creating a country challenge fund, supporting implementation to identify workable interventions,

“If we are going to create an AIDS-free generation we also must address the needs of the people who are at the highest risk of contracting HIV.”

and bolstering civil society groups’ efforts to reach those populations.

“We cannot afford to avoid sensitive conversations,” she said. “If we are going to create an AIDS-free generation we also must address the needs of the people who are at the highest risk of contracting HIV.”

In order to reach these key populations, Secretary Clinton announced three new U.S. Government initiatives. The first will invest \$15 million in implementation research to identify the specific interventions that are most effective for each key population. A \$20 million challenge fund will support country-led plans to expand services for these populations. And an additional \$2 million will bolster the efforts of civil society to reach high-risk groups.

“Unfortunately, today very few countries monitor the quality of services delivered to these high-risk key populations,” said Secretary Clinton. “Fewer still are rigorously assessed as to whether the services provided actually prevent transmission or do anything to ensure that HIV-positive people in these groups get the care and treatment they need. Even worse, some take actions that, rather than discouraging risky behavior, actually drive more people into the shadows where the epidemic is that much harder to fight.”



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U.S. Secretary of State Hillary Clinton at the International AIDS Conference

An AIDS-free generation

“Secretary Clinton’s commitment recognizes that we can’t achieve an AIDS-free generation unless we do much better at meeting the HIV needs of those groups at the center of the epidemic, including gay men and other MSM, injecting drug users, and sex workers,” said amfAR CEO Kevin Robert Frost. “The new initiative targeting key populations is a down payment that will improve the U.S. global AIDS response in this critical area.” ■

Take-Home HIV Test Approved

The Food and Drug Administration (FDA) has approved the first rapid, over-the-counter HIV test. OraQuick will allow Americans to test themselves in the privacy of their homes, using a mouth swab, and will return a result in 20 to 40 minutes.

OraSure, which makes the test, launched OraQuick in October through retailers such as Walgreens, CVS, and Walmart, as well as online pharmacies. OraSure has also set up a toll-free call center to provide counseling and medical referrals to test users.



Curing HIV: Lessons from and for Children

By Jeffrey Laurence, M.D., and Rowena Johnston, Ph.D.

Adults with HIV have a small number of infected cells in which HIV remains dormant, invulnerable to attack by the immune system or highly active antiretroviral therapy (HAART). It is generally believed that these latently infected cells persist lifelong—for at least seven decades—forming a critical barrier to curing AIDS. The three main strategies currently under investigation to cure HIV—pharmacological, immunological, and gene therapy—have all received amfAR support, and several have made it into human testing.

The vast majority of these studies, however, involved adults. A think tank organized by amfAR in San Francisco, June 22–24, brought together 12 scientists involved in various aspects of HIV cure research, along with two bioethicists, to explore the potential for an HIV cure in infants and children. Some surprising, potentially game-changing, results were reported.

It is possible that the reservoirs of latent virus self-destruct much more quickly in children than has been observed in HIV-infected adults.

Around the time HAART became available in the mid-1990s, doctors and researchers wondered whether these potent drugs that can shut down the ability of the virus to reproduce might ultimately cure patients of their infection. Hopes were soon dashed as scientists identified the small number of infected cells that came to be known as the latent reservoir of virus that would take about 70 years to eradicate with HAART. It has since become a truism that HIV cannot be cured by HAART.

But an intriguing finding was reported at the think tank by Dr. Deborah Persaud of Johns Hopkins University and Dr. Katherine Luzuriaga of the University of Massachusetts relating to a cohort of children who had received antiretroviral therapy (ART) within days to weeks of being identified as HIV infected by way of mother-to-child transmission. It is not uncommon for some children identified soon after birth and put on antiretroviral therapy to test HIV antibody negative on standard HIV testing.

Is it possible that when HAART is started in infancy, rather than adulthood, the length of time needed to eradicate HIV might be reduced? Dr. Mike McCune of the University of California, San

Francisco, presented data suggesting that a fetal, and perhaps neonatal, human immune system might respond very differently to HIV infection compared to that of an adult. These differences could provide a unique protective barrier that serves to reduce the chances of mother-to-child transmission of HIV. Based on this new information and data presented by others, it is possible that the reservoirs of latent virus decay—self-destruct—much more quickly than has been observed in HIV-infected adults.

Tackling the problem of curing HIV from a different angle, meeting participants discussed the possibility that an uninfected newborn's stem cells might be used in an approach to an AIDS cure in both adults and children. These “cord blood stem cells,” obtained by draining blood from placentas removed following birth, are much more forgiving in terms of the need to match the donor tissue type to that of the recipient. Banks of such donated stem cells have been formed and tested for the CCR5 mutation that renders the cells HIV-resistant.

Already one HIV-positive man in Utrecht, Holland, who required a transplant in an attempt to cure his leukemia-like disease, received such cord blood cells in mid-May. Once his anti-HIV drugs have been stopped, we will know if he is indeed another “proof of concept” that AIDS can be cured by such a procedure, after the “Berlin Patient,” Timothy Brown.

In his discussions of gene therapy approaches for curing HIV, Dr. Hans-Peter Kiem brought up the possibility of engineering stem cells that have only one copy of the CCR5 mutation. This has a couple of advantages. Cord blood stem cells with only one copy of the mutation are far more numerous than those with both copies of the mutation (which is required for resistance to HIV). If the cells already have one copy, it may be easier to genetically engineer them to acquire the other copy of the mutation than when starting with cells that have neither of the copies.

Several new avenues of investigation were illuminated during the think tank, and intriguing hints at the possibility of a new way to cure HIV were presented. The think tank helped to shed light on a relatively understudied area, namely the differences in the challenges we may face in trying to cure HIV in the pediatric setting. Children infected with HIV represent an important group to address as we move towards our goal of curing everyone who has HIV. ■

Dr. Laurence is amfAR's Senior Scientific Consultant and Dr. Johnston is amfAR's Vice President and Director of Research.



Dr. Katherine Luzuriaga



Dr. Deborah Persaud



Paving the Way to an AIDS-Free Generation



Photo: IAS/Ryan Rayburn - CommercialImage.net

Nearly 24,000 people from 183 countries came together for the XIX International AIDS Conference in Washington, D.C., July 22–27.

With President Obama's 2009 lifting of the nation's entry restrictions on people living with HIV, this was the first International AIDS Conference to be held in the U.S. in 22 years.

The biennial conference—the world's largest meeting on AIDS—enabled researchers, advocates, healthcare workers, public health officials, people living with HIV, and others involved in the AIDS response to share knowledge and research findings, discuss what works and what doesn't, and collectively chart a way forward.

The theme of AIDS 2012 was "Turning the Tide Together," selected to emphasize how a global and decisive commitment is crucial to changing the course of the epidemic now that science is presenting promising results in HIV treatment and prevention.

In an opening plenary address, Secretary of State Hillary Rodham Clinton announced that she would release by December 1, 2012, a blueprint to create an AIDS-free generation.

amfAR and AVAC Launch Global Action Agenda for Ending AIDS

To coincide with the conference, amfAR and AVAC released a global action agenda aimed at accelerating progress towards the end of the AIDS epidemic. The agenda identifies five major short-term priorities for global AIDS programs as well as essential steps that must be taken—year by year through 2015—by national governments, international organizations, donors, civil society, researchers, and technical agencies.

The "Action Agenda to End AIDS" was the focus of a satellite session at the conference titled "Getting Real About Getting to the End of AIDS." amfAR Chairman Kenneth Cole opened a lively panel discussion that was moderated by renowned journalist Charlayne Hunter-Gault. Panelists included Anthony Fauci, M.D., director of the National Institute for Allergy and Infectious Diseases; Mike Cohen, M.D., professor of epidemiology at the University of North Carolina; Helen Rees, M.D., executive director of the Wits Reproductive Health and HIV Institute in South Africa; Chris Collins, amfAR vice president and director of public policy; Mitchell Warren, executive director of AVAC; and other leading AIDS experts.

"At this moment of great opportunity, we need to be clear about the critical choices ahead," said Collins. "The world can begin to turn the epidemic around within the next three years—but only if



Photo: Eric Thayer

amfAR Vice President and Director of Public Policy Chris Collins

we agree on the major priorities, commit to realistic milestones and hold ourselves accountable. This new agenda outlines the critical decisions we need to make in the coming years to put us on a path to beginning to end the AIDS epidemic."

"An Action Agenda to End AIDS" is available online at EndingAIDS.org.

“It is unacceptable that intellectual property rights undermine world access to high quality, affordable medicine and diagnostic tools in resource-limited settings.”

- **Dr. Françoise Barré-Sinoussi, 2008 Nobel Laureate for Medicine and IAS President-elect**



Photo: IAS/Steve Shapiro - CommercialImage.net

Physician Brothers Win Elizabeth Taylor Human Rights Award

At the opening plenary, July 22, amfAR Global Fundraising Chairman Sharon Stone presented the inaugural Elizabeth Taylor Award for Human Rights in the Field of HIV to Drs. Kamiar and Arash Alaei of Iran. The award was jointly sponsored by amfAR and the International AIDS Society.

The physician brothers pioneered HIV care among prisoners in Iran, but were arrested in 2008 and accused of fomenting “a velvet revolution.” They were locked up in Iran’s notorious Evin prison, where each spent months in solitary confinement. As word spread of their incarceration, Physicians for Human Rights spearheaded a vigorous effort to secure their release. For Kamiar, it finally came in late 2010, after two and a half years in prison. Arash was released in 2011. Today the brothers are working at the State University of New York in Albany.



Drs. Kamiar and Arash Alaei and amfAR Global Fundraising Chairman Sharon Stone

Photo: IAS/Ryan Rayburn - CommercialImage.net



Photo: IAS/Ryan Rayburn - CommercialImage.net

“The AIDS disease is caused by a virus, but the AIDS epidemic is not. The AIDS epidemic is fueled by stigma, by hate, by misinformation, by ignorance, by indifference.”

- **Sir Elton John**

“If we are truly turning the tide together, then transgendered people, sex workers, drug users—people like me—should be included and part of the solution.”

- **Debbie McMillan, a 42-year-old transgender woman and a former sex worker and drug user, who works in transgender health empowerment**



Photo: IAS/Steve Shapiro - CommercialImage.net

A Remembrance on the Mall

Panels from the AIDS Memorial Quilt were laid out on the National Mall and many were displayed on the walls of the conference center. Secretary Clinton recalled in her speech the first time she saw the quilt, which bears the names of those who have died of AIDS-related illnesses. “We are all here because we want to bring about that moment when we stop adding names,” she said. “When we can come to a gathering like this one and not talk about the fight against AIDS, but instead commemorate the birth of a generation that is free of AIDS.”



amfAR Chairman Kenneth Cole was among those who read out the names of people who have died of AIDS-related causes.

Photo: Eric Thayer



Photo: IAS/Ryan Rayburn - CommercialImage.net

“No matter how much we come together and cheer each other and see the evidence, we still have to fight stigma wherever we find it.”

- **President Bill Clinton**

“The AIDS movement promotes development grounded in solidarity, courage, respect for the dignity of all people, and an unrelenting demand for justice.”

- **Jim Yong Kim, President of the World Bank**



Photo: IAS/Steve Shapiro - CommercialImage.net



AIDS Memorial Quilt panels were displayed on the National Mall.

Photo: Eric Thayer

Leading the Charge on AIDS Research

Photo: IAS/Steve Shapiro - CommercialImage.net



amfAR Vice President and Director of Research Rowena Johnston, Ph.D.

Throughout the conference, amfAR played a prominent role in research-focused programming. Vice President and Director of Research Dr. Rowena Johnston participated in a two-day pre-conference cure symposium—titled “Towards and HIV Cure”—co-chaired by Nobel prize-winning scientist Dr. Françoise Barré-Sinoussi and Dr. Steven Deeks, an amfAR grantee and a member of the amfAR Research Consortium on HIV Eradication (ARCHE). Dr. Johnston also co-chaired a

conference session titled “Gender and Science: Shifting the Paradigm in HIV Research.”

Dr. Annette Sohn, amfAR Vice President and Director of TREAT Asia, as well as other TREAT Asia staff and network investigators, participated in pre-conference workshops on HIV pediatric and cure research. Two studies on risk behaviors and treatment outcomes of adolescents from TREAT Asia’s pediatric HIV network were presented.

amfAR’s GMT Initiative, led by Director Kent Klindera, was well represented in several sessions, with community partners presenting data from amfAR-supported projects. Highlights included a presentation on sustainable funding during a Global Forum on MSM and HIV pre-conference meeting, and a skills-building session on community engagement in GMT-related research.



Photos: IAS/Steve Shapiro - CommercialImage.net

The “Towards an HIV Cure” pre-conference symposium

Gay Men, MSM Key to Successful HIV/AIDS Response

“Today we need to acknowledge that we have failed in too many places to provide even the most basic services to gay men. In much of the world, they remain hidden, stigmatized, and susceptible to blackmail if they disclose their sexual lives,” said amfAR Vice President and Director of Public Policy Chris Collins during the conference. “HIV epidemics in 2012 are severe and expanding among MSM globally in both low- and high-income countries, and yet we remain underrepresented in decision-making about programs that address our own health.”

His words were spoken during a conference symposium session titled “Men Who Have Sex with Men and HIV” and hosted by *The Lancet*, whose July 28, 2012, issue featured a series on the same theme, including two articles co-authored by Collins.



Photo: IAS/Deborah W. Campos - CommercialImage.net

Panelists at The Lancet symposium

Collins presented one of the articles, “A call to action for comprehensive HIV services for men who have sex with men,” at the session alongside several of his co-authors. In the “call to action,” the authors found that, where epidemiological surveillance has been conducted, men who have sex with men (MSM) bear a disproportionate burden of HIV. Yet this population continues to be excluded, sometimes systematically, from HIV services because of stigma, discrimination, and criminalization.

The combined effects of this burden and exclusion, the paper states, makes the expansion of HIV prevention, treatment, and care to MSM an urgent imperative for both public health and human rights purposes. The paper lays out a strategy to greatly improve the response around the world. For this, the authors looked at inputs such as epidemiology, social settings, and clinical factors.

“Gay men should be treated as whole people. Not just vectors of disease,” said Collins. “Comprehensive care of MSM requires well-trained physicians, knowledge that MSM are whole people with a range of healthcare needs, and understanding that provider engagement can enable youth and older MSM to develop healthier lifestyles.”

“By working together and demanding equality in rights and health, we can achieve an AIDS-free generation for gay men and in the process advance our rights and the rights and health of others.”

Together to End AIDS

On the eve of the conference, amfAR honored Bill Gates for his visionary leadership on global health and HIV/AIDS at an event co-hosted with GBCHealth and titled Together to End AIDS. The event was held at the John F. Kennedy Center for the Performing Arts, and was attended by a distinguished guest list that included National Institute of Allergy and Infectious Diseases Director Anthony Fauci, M.D., National Institutes of Health Director Francis Collins, M.D., Ph.D., M•A•C AIDS Fund Chairman John Demsey, Rep. Barbara Lee, Rep. Ed Markey, and Health and Human Services Secretary Kathleen Sebelius, among many others.

Anderson Cooper introduced amfAR Global Fundraising Chairman Sharon Stone, who presented amfAR's Award of Courage to Mr. Gates. Other speakers included House Democratic Leader Nancy Pelosi, UNAIDS Executive Director Michel Sidibé, amfAR Chairman Kenneth Cole, and GBCHealth CEO John Tedstrom.



Clockwise from top left: M•A•C Viva Glam spokesperson Eve; amfAR Chairman Kenneth Cole and Global Fundraising Chairman Sharon Stone; amfAR Trustee Bill Roedy and House Democratic Leader Nancy Pelosi; Soprano Jessye Norman performs "You'll Never Walk Alone"; UNAIDS Executive Director Michel Sidibé (Photos: WireImage)



"As the title of tonight's event suggests, the end of AIDS will be the story of a collaborative effort that has brought people together from all walks of life and every part of the world."

- Kevin Robert Frost, amfAR CEO



"Again and again, innovation has solved problems that people thought were unsolvable."

- Bill Gates

Kiehl's LifeRide for amfAR Raises \$115,000

The third annual Kiehl's LifeRide for amfAR was a nine-day, 1,800-mile charity motorcycle ride that began in Miami and ended in Washington, D.C., on the eve of the conference. The ride was led by Kiehl's USA President Chris Salgado and amfAR CEO Kevin Robert Frost, who were joined by motorcycle enthusiasts including Tricia Helfer, Katee Sackhoff, Teddy Sears, Christopher Redman, Marguerite Moreau, Timothy White, Paul Cox, Grant Reynolds, Conrad Leach, and others. Kiehl's made donations to amfAR at each of the eight stops along the way, totaling \$115,000.



Clockwise from top left: amfAR CEO Kevin Frost, John Corbett, Gilles Marini, Kiehl's President Chris Salgado, and Tyson Beckford; The riders completed their journey at the Kiehl's Georgetown store in Washington, D.C.; amfAR Global Fundraising Chairman Sharon Stone joined the riders in Georgetown (Photos: Eric Thayer)



Dr. Steven Deeks

Working at Johns Hopkins University, Dr. Robert Siliciano's previous ARCHE research has identified agents—notably, a drug called disulfiram—that might achieve such reactivation. He has previously identified a challenge with this strategy as well: The cells out of which the latent virus is reactivated do not always die, which means the virus remains in the body. In a further investigation of the reactivation strategy, Dr. Siliciano plans to determine whether all of the latent virus can be reactivated. If some of the virus remains dormant, he will attempt to understand the mechanisms whereby it remains latent despite interactions with drugs that are intended to reverse that latency. Understanding the ability of the virus to remain stubbornly latent will have important ramifications for the design of HIV cure strategies.

Dr. Julian Elliott of Monash University in Melbourne, Australia—with the help of ARCHE grantee Dr. Steven Deeks—will try to determine whether the above-mentioned drug disulfiram is effective in the context of curing HIV in patients. Using 40 adult volunteers with stable HIV infection on ART, divided into four groups of 10, Elliott and Deeks will give different doses of disulfiram daily for three days. In addition to safety monitoring, they will evaluate the effect of disulfiram on the reactivation



Dr. Timothy Henrich

of HIV from T cells and plasma. They will also see if the size of a patient's latent HIV reservoir is altered by treatment.

Another study led by Dr. Siliciano will continue to probe the challenges inherent in using drugs to mobilize virus out of latently infected cells. Dr. Siliciano plans to characterize potential new mechanisms whereby HIV remains locked in the DNA of latently infected cells. Understanding the various ways in which the virus achieves this may lead to the design of new drugs that can flush the virus out of infected cells.

Dr. Timothy Henrich of Harvard will study two HIV-positive individuals who had been on long-term ART when they developed lymphomas. To treat these cancers, both underwent typical stem-cell transplants from normal donors, who had been selected only for the usual tissue-type match. But Dr. Henrich found something extraordinary: Not only were these individuals cured of their cancer, but he could find no evidence of HIV.

This was true despite the fact that—unlike the “Berlin patient,” who was cured of HIV following transplant with cells from a donor selected for the CCR5 delta32 mutation, and thus resistant to HIV infection—no extraordinary measures were used here. For the moment, these two individuals remain on ART. But with amfAR funding, Dr. Henrich will interrupt their ART in a search for HIV in their blood and other tissues.

Dr. Deborah Persaud of Johns Hopkins and Dr. Katherine Luzuriaga of the University of Massachusetts will determine if it is possible to cure an HIV infection with ART alone in children in whom ART had been started soon after birth and continued for an average of 15 years. They have a group of five such children with no detectable HIV, who remain HIV antibody negative. Drs. Persaud and Luzuriaga will use highly sophisticated tests to search for active and latent virus. (See page 6)

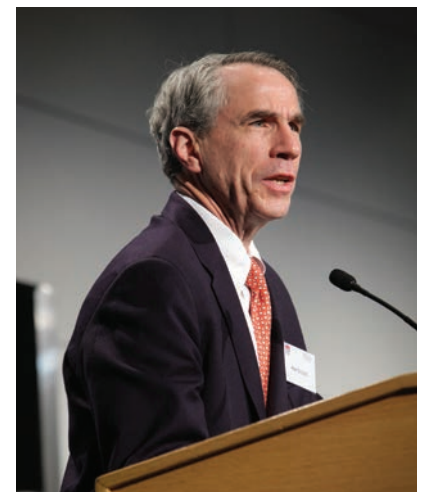


Dr. Julian Elliott

Current antiretroviral therapy can in many cases reduce levels of HIV to such an extent that sensitive equipment is required to detect it, but the virus can almost always be found. Demonstrating with confidence that a cure has been achieved will require highly sensitive methods of detecting HIV at substantially lower levels than is currently

possible. ARCHE grantee Dr. David Margolis of the University of North Carolina plans to develop just such an ultra-sensitive methodology that could be used in the test tube as well as in subjects participating in clinical trials.

“In just two years, ARCHE has not only shaken up the AIDS research world by contributing vital findings to the field, but it has given us a deeper understanding of how and why some interventions work effectively,” said amfAR Vice President and Director of Research Dr. Rowena Johnston. “These new projects follow up on recent findings, which will hopefully accelerate the search for a cure that can be applied widely and safely for the 34 million people who need one.” ■



Dr. Robert Siliciano

Investing in Syringe Exchange Results in Future Cost Savings

Harm reduction approaches for those who inject drugs, including the distribution of clean needles and syringes, are proven interventions to prevent transmission of HIV and other blood-borne viruses, and are recommended by the World Health Organization (WHO) and other leading public health agencies.

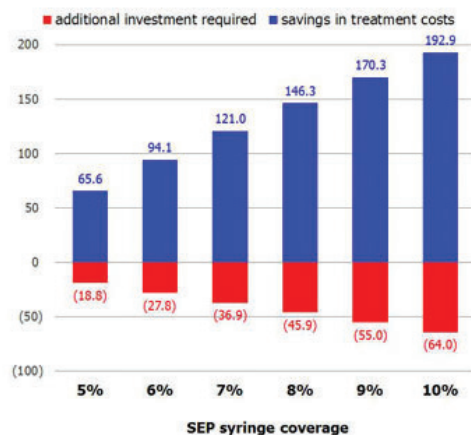
Recent studies in the U.S. and China have demonstrated that investments in syringe exchange programs (SEPs) are cost-saving HIV prevention interventions.

During the XIX International AIDS Conference in July, researchers reported that increasing SEP coverage in the U.S. from the existing 2.9 percent to 5 percent would avert 169 HIV infections. Although this would require \$19 million of additional investment, it would save \$66 million in future treatment costs. Greater program coverage was associated with even greater savings over time (see chart).

A study in China estimated that between 2002 and 2008, the SEP in Yunnan province averted approximately 16–20 percent (5,200–7,500) of new HIV infections. With total spending of \$1.04 million on the program during that time period, researchers estimated that it saved between \$1.38 and \$1.97 million in care and treatment costs averted.

The findings of major returns on SEP investments are lessons for all Asian countries, where 4.5 million of the estimated 15.9 million people who inject drugs live. Although injecting drug use is a key driver of the regional HIV epidemic, SEP coverage has been inconsistent. Delays in SEP scale-up are resulting in lost opportunities to prevent new infections and capitalize on cost savings for national HIV programs struggling with shrinking budgets. ■

Additional investment required per year & savings in HIV treatment costs (million 2011 USD) for each SEP syringe coverage level



Used with permission from Nguyen TQ, et al.

Effecting Change: Service Organizations as Community Advocates

For the past five years, amfAR has been serving the HIV-related needs of gay men, other men who have sex with men (MSM), and transgender individuals (collectively, “GMT”) throughout the developing world through its MSM Initiative, which was recently renamed The GMT Initiative (see page 13).

With the change in name—meant to better reflect the diversity of those served by the program—came a strategic shift in focus toward advocacy as an essential means of effecting real and lasting progress. “The change is about being more targeted in our grant-making to have a broader impact,” said Kent Klindera, director of the GMT Initiative.

A project called Advocacy in Action, funded by the Levi Strauss Foundation, was a forerunner of this shift in focus. Coordinated by both the GMT Initiative and earlier by amfAR’s TREAT Asia program, it was designed to build the capacity of community-based organizations in Asia to advocate more effectively for improved access to HIV prevention, treatment,



Chengdu is the capital of Sichuan Province, China.

care, and support services for GMT individuals. The project takes a creative hands-on approach and combines on-site training and practical experience through tasking organizations with developing and implementing an advocacy project tailored to their needs and aspirations.

One of the first Advocacy in Action award recipients, Chengdu Love & Kindness Group, formed in May 2007 by HIV-positive MSM in Chengdu, China, is a service organization working to improve the well-being and quality of life of HIV-positive MSM. “Service groups are the best advocates that a

community has,” said Klindera. “They know the needs of the people and the community better than anyone else.”

Chengdu Love & Kindness Group determined through qualitative research that the biggest issues facing people living with HIV/AIDS (PLWHA) in their community were the inconsistency in the costs associated with undergoing routine medical tests and the high overall costs of managing HIV-related illnesses. The group’s advocacy project aimed to remedy these issues, and succeeded in generating important changes for their community. PLWHA in Chengdu are no longer required to pay a “threshold fee for in-hospital treatment” and the costs of HIV-related tests are clearly itemized on posted lists, which help protect patients by ensuring that test fees remain constant between visits.

“Through this project, I have a new understanding of advocacy,” said Liu Peng of Chengdu Love & Kindness Group. “In the past I knew nothing about methods and strategy, but now I know how to identify key problems, use a variety of targeted advocacy strategies to address them, and achieve desirable outcomes.” ■

amfAR Launches GMT Initiative

SUCCESSOR TO amfAR'S MSM INITIATIVE BETTER REFLECTS THE DIVERSITY OF POPULATIONS SERVED BY THE PROGRAM



Building upon its successful MSM Initiative, amfAR has launched the GMT Initiative, aimed at curbing the HIV/AIDS epidemic among gay men, other men who have sex with men (MSM), and transgender individuals—collectively referred to as “GMT.”

The new name reflects a more strategic focus for the program and an opportunity to capitalize on recent advances in the science of reducing HIV vulnerability among GMT. It also recognizes that, since its inception in 2007, the program has not confined itself solely to MSM.

Through the MSM Initiative, amfAR has made 184 Community Awards totaling more than \$3.3 million to support 140 frontline organizations serving GMT in 72 countries. As the program evolved, many awards went to groups focusing exclusively on transgender individuals, said GMT Initiative Director Kent Klindera.

“We’re taking the best of what we’ve learned during the past five years and applying that knowledge, as well as new science, to have a greater impact on the global AIDS epidemic,” Klindera said. “We’re strengthening our program to challenge public health and other social service systems to better serve the needs of GMT, while continuing to support vibrant community-led programming. We know from experience that larger, systemic changes are best achieved through empowering local communities.”

The GMT Initiative will focus on several core areas:

- Funding and more formally evaluating combination HIV program models that can be scaled up
- Emphasizing the connection between rights-based advocacy and successful service delivery
- Supporting targeted advocacy to influence government and donor policies
- Strengthening the capacity of GMT-led organizations to collaborate with and expand access to appropriate government-funded HIV programs
- Supporting epidemiological, resource tracking, and other research to advocate for GMT-related health services

Like its predecessor, the GMT Initiative will continue to award grants and build the capacity of community organizations working to decrease the spread of HIV/AIDS in five regions: Africa, Asia and the Pacific, the Caribbean, Eastern Europe and Central Asia, and Latin America.

“There is a real need for the kind of work the GMT Initiative is funding,” Klindera said. “We’ve already made a tremendous impact through our MSM Initiative, and we hope our new focus through the GMT Initiative will save more lives, change policies, and help stop the spread of HIV/AIDS.” ■

Battling HIV/AIDS in Caribbean, Eastern Europe, Central Asia

amfAR ANNOUNCES 16 AWARDS TO GROUPS COMBATING HIV/AIDS AMONG GMT

amfAR has announced new rounds of community awards to support frontline groups working with gay men, other men who have sex with men, and transgender individuals in the Caribbean, Eastern Europe, and Central Asia. These awards were made possible with support from the Elton John AIDS Foundation and AIDS Life.

Even with increased HIV prevalence rates among GMT, HIV/AIDS services for these marginalized populations in the Caribbean are scant. Several of the grantee organizations operate in countries where same-sex sexual activity among men is illegal; GMT often must live in the shadows. The nine Caribbean awards, ranging from \$10,000 to \$20,000 each, will support HIV/AIDS prevention, testing, and treatment services, as well as advocacy efforts.

In Eastern Europe and Central Asia, amfAR is funding seven community-led groups working with GMT, including five that are receiving amfAR funding for at least the second time. For the second year, Tanadgoma—Center for Information and Counseling on Reproductive Health in Tbilisi, Georgia, is working with partners in the South Caucasus to increase understanding of transgender individuals’



Tanadgoma members with colleagues from Georgia, Azerbaijan, Armenia, and Ukraine at a meeting to share strategies around engaging national governments in GMT and HIV issues

needs in Armenia, Azerbaijan, and Georgia through personal interviews. The resulting reports will be used to advocate for increased access to quality HIV prevention, treatment, and care services for transgender individuals.

“The GMT Initiative is committed to not only helping to curb the spread of HIV/AIDS through local efforts, but also working with larger institutions like the government and police to help change attitudes and educate them about vulnerable populations,” said GMT Initiative Director Kent Klindera. “We’re proud of our grantees for having the vision to work with their local populations while also focusing on the larger picture.” ■

Inspiration: New York, Paris, and São Paulo

The Inspiration series, produced by Josh Wood productions, is a celebration of men's style that benefits amfAR's innovative AIDS research programs. This year's events featured rousing musical performances, runway shows, and tributes to Fergie, Mario Testino, John Demsey, and Robert Duffy and Marc Jacobs International. In 2012, the Inspiration series has raised more than \$2 million for AIDS research.

Special thanks: Rebecca Wang Entertainment, M•A•C Viva Glam, Marc Jacobs, Piaget, Piper-Heidsieck Champagne, Piaget, Hugo Boss, Kohler Co., B&B Italia, Grey Goose Cherry Noir, Gotham Magazine, Mandarin Oriental-New York, Jeff Leatham Design, Coloredge New York + Los Angeles, Iguatemi São Paulo, Louis Vuitton, Silvia Furmanovich, Grey Goose Vodka, Luxor Pure Gold 24K, HP Indigo, Laborprint (Photos: Kevin Tachman unless otherwise noted)



Cheyenne Jackson, amfAR Founding Chairman Dr. Mathilde Krim, and Rose McGowan at Inspiration New York.



Sofia Coppola and Marc Jacobs in Paris (Photo: WireImage)



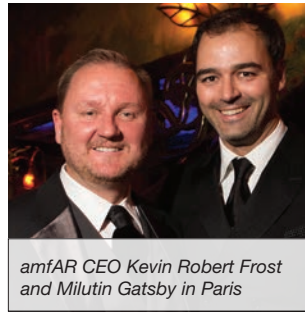
Scissor Sisters closed out the night in New York with a thrilling set.



São Paulo Event Chairs Felipe Diniz, Sharon Stone, and Dinho Diniz, with Danielle Amorim. (Photo: Getty Images)



amfAR Global Fundraising Chairman Sharon Stone in Paris with Piaget Award of Inspiration honoree Robert Duffy



amfAR CEO Kevin Robert Frost and Milutin Gatsby in Paris



Piaget Award of Inspiration honoree Fergie in New York



Award of Courage honoree John Demsey with Deborah Harry and amfAR Chairman Kenneth Cole in São Paulo (Photo: Getty Images)

amfAR Milano

The fourth annual amfAR Milano was held in conjunction with Milan Fashion Week, September 22. Sharon Stone chaired the event along with Silvia Venturini Fendi, Lapo Elkann, Milutin Gatsby, Christophe Navarre, and amfAR Chairman Kenneth Cole. The black-tie gala raised more than \$1.1 million for AIDS research and featured a cocktail reception, dinner, and memorable performances by fashion industry favorites Theophilus London and Anna Calvi.

Special thanks: Moët Hennessy, Westin Palace Milano, Fendi O' (Photos: Kevin Tachman)



Theophilus London brought guests to their feet.



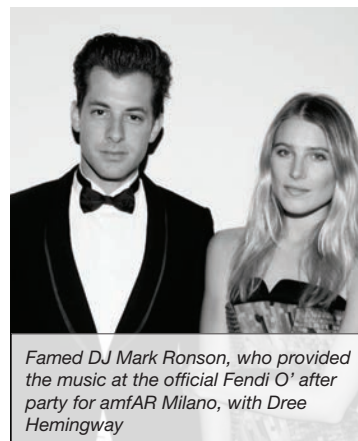
amfAR Global Fundraising Chairman Sharon Stone with DSquared² designers Dean and Dan Caten, who donated a crystal-encrusted one-of-a-kind outfit to the event's live auction



amfAR Chairman Kenneth Cole and longtime amfAR supporter Roberto Cavalli



Solange Knowles and Anna Calvi



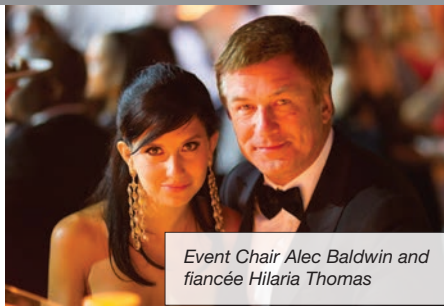
Famed DJ Mark Ronson, who provided the music at the official Fendi O' after party for amfAR Milano, with Dree Hemingway



Anna Calvi gave a stunning performance of her singles "Jezebel" and "Desire."



British R&B/pop sensation Jessie J's set was a highlight of the night.



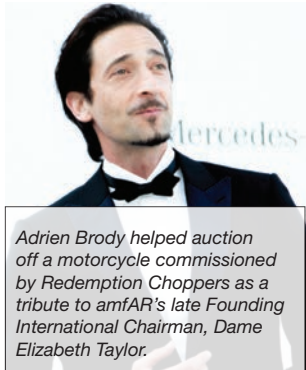
Event Chair Alec Baldwin and fiancée Hilaria Thomas



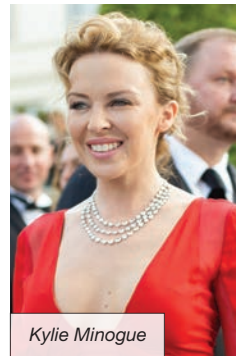
Karl Lagerfeld, Kirsten Dunst, and Carine Roitfeld



Longtime amfAR supporter Janet Jackson



Adrien Brody helped auction off a motorcycle commissioned by Redemption Choppers as a tribute to amfAR's late Founding International Chairman, Dame Elizabeth Taylor.



Kylie Minogue



Madame Hind El Achchabi, winner of the "Perfect Black Wardrobe," with the runway show models

Special thanks: Bold Films, L'Oréal Paris, The Weinstein Company, Chopard, Mercedes-Benz, Quintessentially, Moët Hennessy, Super-Max (Photos: Kevin Tachman)



amfAR Ambassador Milla Jovovich and Chairman Kenneth Cole

Cinema Against AIDS Cannes

The 19th annual Cinema Against AIDS gala was the most successful event in amfAR history, raising nearly \$11 million. The star-studded event took place during the Cannes Film Festival on May 24, 2012, and opened with performances by acclaimed indie-pop band Fun. and British R&B/pop sensation Jessie J. The evening also featured a record-breaking live auction that included such items as a one-hour private tennis match with Novak Djokovic, a signed screen print of Andy Warhol's iconic *Marilyn 29*, and an original Damien Hirst piece entitled *Beautiful Nectar Painting*.

generationCURE: Solstice

On June 13, 2012, amfAR's generationCURE—a group of young professionals dedicated to helping amfAR accelerate its search for a cure for HIV/AIDS—presented a convivial evening in support of amfAR's life-saving work at the Hôtel Americano in New York City. To date, generationCURE has raised more than \$50,000.



Life Ball celebrated its 20th anniversary under the banner, "Fight the Flames of Ignorance." Attending the May event for the first time, amfAR Ambassador Milla Jovovich said, "For me, Life Ball is about solidarity. It's a wonderful example of how people and organizations coming together can change the world." Life Ball combines the great Viennese Ball tradition with glamorous, outlandish performances, and inspirational speeches. This year's event raised nearly \$700,000 for amfAR's TREAT Asia pediatric program and GMT Initiative.

Life Ball



Cinema Against AIDS Toronto 2012

The fourth annual Cinema Against AIDS Toronto, which took place during the Toronto International Film Festival on September 7, was a festive black-tie event at the Shangri-La Hotel. Featuring a cocktail reception, dinner, and entertainment by DJ Ruckus, it was followed by an after party at Maison Mercer. The event raised more than \$70,000 in support of amfAR.



Bloomingdale's

As part of its seasonal Fashionable Fundraiser, August 23–24, 2012, Bloomingdale's and Bloomingdales.com pledged a \$75,000 donation to amfAR. Shoppers were encouraged to learn about amfAR and were treated to savings on merchandise purchased in-store and online during those two days.

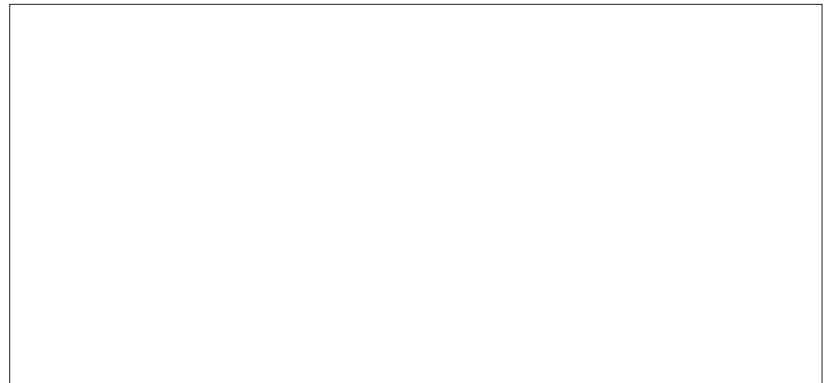




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34 million people are living with HIV and have one wish this holiday season – a cure. Help make that wish come true with a special gift. Visit www.amfar.org.

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- Curing HIV: Lessons from and for Children
- Secretary Clinton's Blueprint for an AIDS-Free Generation
- FDA Approves the Use of Truvada for HIV Prevention

INSIDE

Calendar

February 6, 2013 • New York Gala
New York City
April 5, 2013 • Inspiration São Paulo
São Paulo, Brazil
May 23, 2013 • Cinema Against AIDS
Antibes, France

For more information, visit www.amfar.org.

INNOVATIONS

The Newsletter of amfAR, The Foundation for AIDS Research

FALL 2012

amfAR
MAKING AIDS HISTORY