

**amfAR**<sup>TM</sup>

MAKING AIDS HISTORY

# INNOVATIONS

AUGUST 2016

## **Harnessing the Power of Antibodies**

Could they hold  
the key to an  
HIV cure?

Also Inside:

**New amfAR Grants  
Advance Cure Research**

**A Step Forward for HIV  
Prevention**

**Improving Pediatric HIV  
Treatment in Asia**

amfAR, The Foundation for AIDS Research  
[amfar.org](http://amfar.org)

**AUGUST 2016**

The biannual newsletter of amfAR,  
The Foundation for AIDS Research

120 Wall Street, 13th Floor  
New York, NY 10005-3908  
T: (212) 806-1600  
F: (212) 806-1601

1100 Vermont Ave. NW  
Suite 600  
Washington, DC 20005  
T: (202) 331-8600  
F: (202) 331-8606

TREAT Asia  
Exchange Tower  
388 Sukhumvit Road  
Suite 2104  
Klongtoey, Bangkok 10110  
Thailand  
T: (+66) 2 663-7561  
F: (+66) 2 663-7562

[www.amfar.org](http://www.amfar.org)

*Innovations* Staff:

Andrew McInnes, Editor  
Megan Trusdell, Senior Staff Writer  
Claudia Kaplan, Senior Staff Writer  
Raoul Norman-Tenazas,  
Creative Director  
Yolande Hunter-Johnson,  
Creative Coordinator



amfAR meets the BBB  
Wise Giving Alliance's  
Standards for Charity  
Accountability

[bbb.org/charity](http://bbb.org/charity)



COVER STORY

9

## Using Antibodies to Block Mother-to-Infant Transmission of HIV ... and Develop a Cure?

amfAR-funded researchers report that their studies of antibodies could have important implications for both HIV prevention and cure.

### POLICY

- 4 **New Report Reveals Uneven Progress on Global HIV/AIDS**
- 4 **Kenneth Cole Appointed Goodwill Ambassador**
- 5 **A Step Forward for HIV Prevention**
- 6 **New Analyses Show Where to Focus HIV Prevention and Care Efforts**

### RESEARCH

- 7 **amfAR Research Funding Targets Biggest Roadblocks to HIV Cure**
- 7 **Kenneth Cole Honored at AIDS Research Conference**
- 8 **New amfAR Grant Addresses Key Challenge in Cure Research**
- 9 **Using Antibodies to Block Mother-to-Infant Transmission of HIV ... and Develop a Cure?**
- 10 **Launching the amfAR Institute for HIV Cure Research**
- 11 **Cure Research Roundup**
- 11 **Krim Fellow Graduates to NIH Grant**

### DONORS

- 12 **A Word of Thanks**

### GLOBAL

- 13 **NIH Renews \$10 Million Research Grant to TREAT Asia**
- 13 **Improving Pediatric HIV Treatment in Asia**
- 14 **A Mission to Mobilize HIV Communities Worldwide**
- 15 **amfAR/Pitt Scholars: An Innovative Solution to a Persistent Need**

### EVENTS

- 16 **Benefit Event Highlights (amfAR New York Gala, amfAR Hong Kong, Inspiration Gala São Paulo, Cinema Against AIDS)**



Photo: Kevin Tachman

## Who's to Judge?

“Why is there such stigma? Stigma often accompanies those diseases that are seen as incurable, deadly, transmissible and disfiguring. But it seems to mark most severely those conditions where the affected person is seen as responsible for getting the disease.”

These words, by openly gay and HIV-positive South African High Court Judge Edwin Cameron in his book *Witness to AIDS*, are as true today as when they were written more than a decade ago. One of the world's most articulate advocates in the field of AIDS and human rights, Judge Cameron was a plenary speaker at the recently concluded International AIDS Conference in Durban, South Africa.

It's dispiriting that, 35 years into this epidemic, we should still be talking about stigma. But in a sense it's more important than ever that we keep talking about stigma and that we tackle it aggressively.

In recent years it's become increasingly clear that HIV is heavily concentrated among what are referred to as key populations: gay men and other men who have sex with men, transgender individuals, sex workers, and people who

inject drugs. As stated in a new amfAR report on HIV and key populations, 40-50% of all HIV infections among adults occur among key populations or their immediate partners. Often marginalized and criminalized, these are the very people who are seen “as responsible for getting the disease.”

What is equally clear is that unless we do a much better job of preventing the spread of HIV among these populations and getting those who are HIV positive into treatment and care, we have little hope of ending the global epidemic. Blaming the victim should have no place in our response to AIDS.

Research aimed at curing HIV is and will remain amfAR's number one priority. But research doesn't exist in a vacuum and we must continue to do all we can to confront the stigma and discrimination that keep so many from seeking the help they need.

“There is nothing shameful about having HIV or AIDS,” wrote Justice Cameron. “If we can talk about it, we normalize it. And the sooner AIDS becomes a normal disease, the sooner we will be able to deal with it unemotionally and effectively. Normally.”

# New Report Reveals Uneven Progress on Global HIV/AIDS

Treatment scale-up progresses but incidence in Eastern Europe and Central Asia rises by 57%

A new UNAIDS report reveals progress on treatment and reduction in deaths, but also the persistence of glaring disparities across countries, regions, and demographic groups.

According to *Global AIDS Update 2016*, while the number of newly infected has remained stable in most regions and has declined by 4% in Eastern and Southern Africa, the annual

treatment services,” said UNAIDS Executive Director Michel Sidibé. “These services must be fully funded and appropriate to people’s needs so that we can end the AIDS epidemic for everybody.”

UNAIDS also announced that 2 million more people worldwide had gained access to antiretroviral medicines in the past 12 months,

**“We need a people-centered response to the AIDS epidemic that removes all obstacles in the path of people’s access to HIV prevention and treatment services.”**

**–UNAIDS Executive Director Michel Sidibé**

number of new HIV infections in Eastern Europe and Central Asia increased by 57% over the past five years.

UNAIDS found that adolescent girls and young women 15–24 years old accounted for 20% of new HIV infections among adults globally in 2015, despite accounting for just 11% of the adult population.

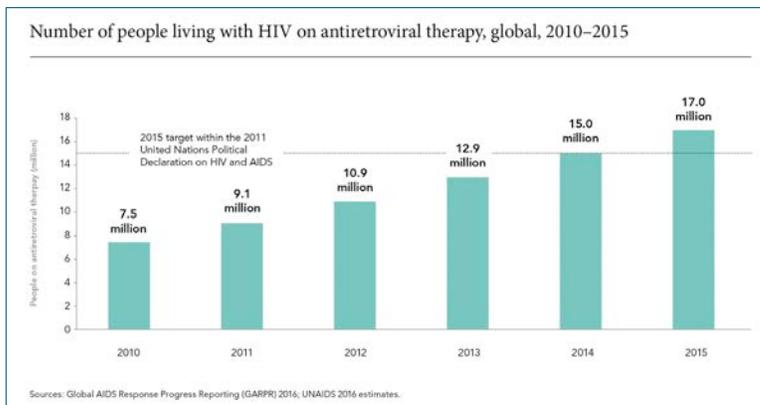
The report, released in May, also found that more than 90% of new HIV infections in Central Asia, Europe, North America, the Middle East, and North Africa in 2014 were among people from key populations and their sexual partners, including gay men and other men who have sex with men, sex workers, and people who inject drugs.

“We need a people-centered response to the AIDS epidemic that removes all obstacles in the path of people’s access to HIV prevention and

bringing the total to 17 million, or 46%, of the 37 million people worldwide living with HIV. Gains were greatest in the world’s most affected region, Eastern and Southern Africa, where coverage increased from 24% in 2010 to 54% in 2015.

The unprecedented increase in treatment coverage in many of the world’s most affected countries has reduced AIDS-related deaths from 1.5 million in 2010 to 1.1 million in 2015.

See the complete UNAIDS report here: [http://www.unaids.org/sites/default/files/media\\_asset/global-AIDS-update-2016\\_en.pdf](http://www.unaids.org/sites/default/files/media_asset/global-AIDS-update-2016_en.pdf)



## Kenneth Cole Appointed Goodwill Ambassador



amfAR Chairman Kenneth Cole with UNAIDS Executive Director Michel Sidibé (Photo courtesy of UNAIDS)

UNAIDS has appointed amfAR Chairman Kenneth Cole an International Goodwill Ambassador in recognition of his 30 years as a passionate champion for people living with HIV. The announcement was made at a press conference, June 7, on the eve of the United Nations General Assembly High-Level Meeting on Ending AIDS.

In his new role, Cole will work to rally the global community by continuing his longstanding efforts to advocate for an inclusive response to the AIDS epidemic. “I am honored by this appointment,” he said. “It is my hope to help intensify efforts to end the epidemic for everyone, everywhere.”

Honored by the significance of day. By appointment as @UNAIDS Goodwill Ambassador, & initiative to end #AIDSby2030 -@mr\_kennethcole



# A Step Forward for HIV Prevention

DHHS issues guidance on use of federal funds for syringe services programs



© Peto Zvonar | Dreamstime.com - Many medical syringes

The U.S. Department of Health and Human Services has issued guidelines on the use of federal funds to implement or expand syringe services programs (SSPs), which have been shown to reduce the transmission of HIV and viral hepatitis among people who inject drugs (PWID). The guidance follows Congress’s decision in December to lift the longstanding ban on federal funding for SSPs.

That measure, which was included in an omnibus spending bill and had bipartisan support, allowed states and communities to use federal funds to pay for all operational costs of SSPs so long as they demonstrated a need. It did not permit the funds be used to pay for syringes themselves.

“This is a major milestone,” said Greg Millett, amfAR vice president and director of public policy. “We commend HHS for moving expeditiously to issue these guidelines and look forward to working with other advocacy groups to make sure these guidelines are implemented in those regions of the country where elevated hepatitis C rates, HIV rates, and injection drug use converge.”

**“We commend HHS for moving expeditiously ... and look forward to working with other advocacy groups to make sure these guidelines are implemented.”**

Injection drug use, particularly of heroin and opioids, is on the rise, with the Centers for Disease Control and Prevention reporting a 150 percent increase in acute cases of hepatitis C in recent years because of risky injection drug use. Last summer, Scott County in Indiana saw an outbreak of HIV and hepatitis C tied to injection drug use. Republican congressional leaders in Kentucky, which has the nation’s highest rates of hepatitis C cases, pushed for the partial repeal of the ban on federal funding for SSPs.

Scientific evidence demonstrates that SSPs reduce the transmission of HIV and other blood-borne diseases without increasing drug use. Such programs also encourage PWID to seek substance abuse treatment and are cost effective, saving millions of dollars in HIV and hepatitis C treatment costs.

The HHS guidance requires that state, local, tribal, and territorial health departments consult with the CDC and provide evidence that their jurisdiction is (1) experiencing, or (2) at risk for significant increases in viral hepatitis infections or an HIV outbreak due to injection drug use. If the CDC determines there is sufficient evidence, the departments can apply to their respective federal agencies to direct funds to support approved SSP activities.

# New Analyses Show Where to Focus HIV Prevention and Care Efforts



Greg Millett, amfAR vice president and director of public policy

A new report affirms that HIV rates among men who have sex with men (MSM) in the U.S. are especially high in the South, reinforcing that HIV prevention efforts in the region, as in the rest of the country, must address the needs of gay and bisexual men.

The May 2016 report in *JMIR Public Health and Surveillance*, authored by researchers at Emory University's Rollins School of Public Health, provides, for the first time, state, city, and county estimates of HIV rates among MSM. HIV prevalence among MSM in 2012 was 15 percent (i.e., 15

in 100 MSM were living with an HIV infection) but rates vary dramatically by geographic area.

For example, of the 25 metropolitan statistical areas with the highest levels of MSM living with an HIV diagnosis, 21 were in southern states.

In 2012, there were six states where more than 15 percent of MSM were living with a diagnosed HIV infection, all of which were in the South. Estimates showed that in 2012 at least one in four MSM was diagnosed

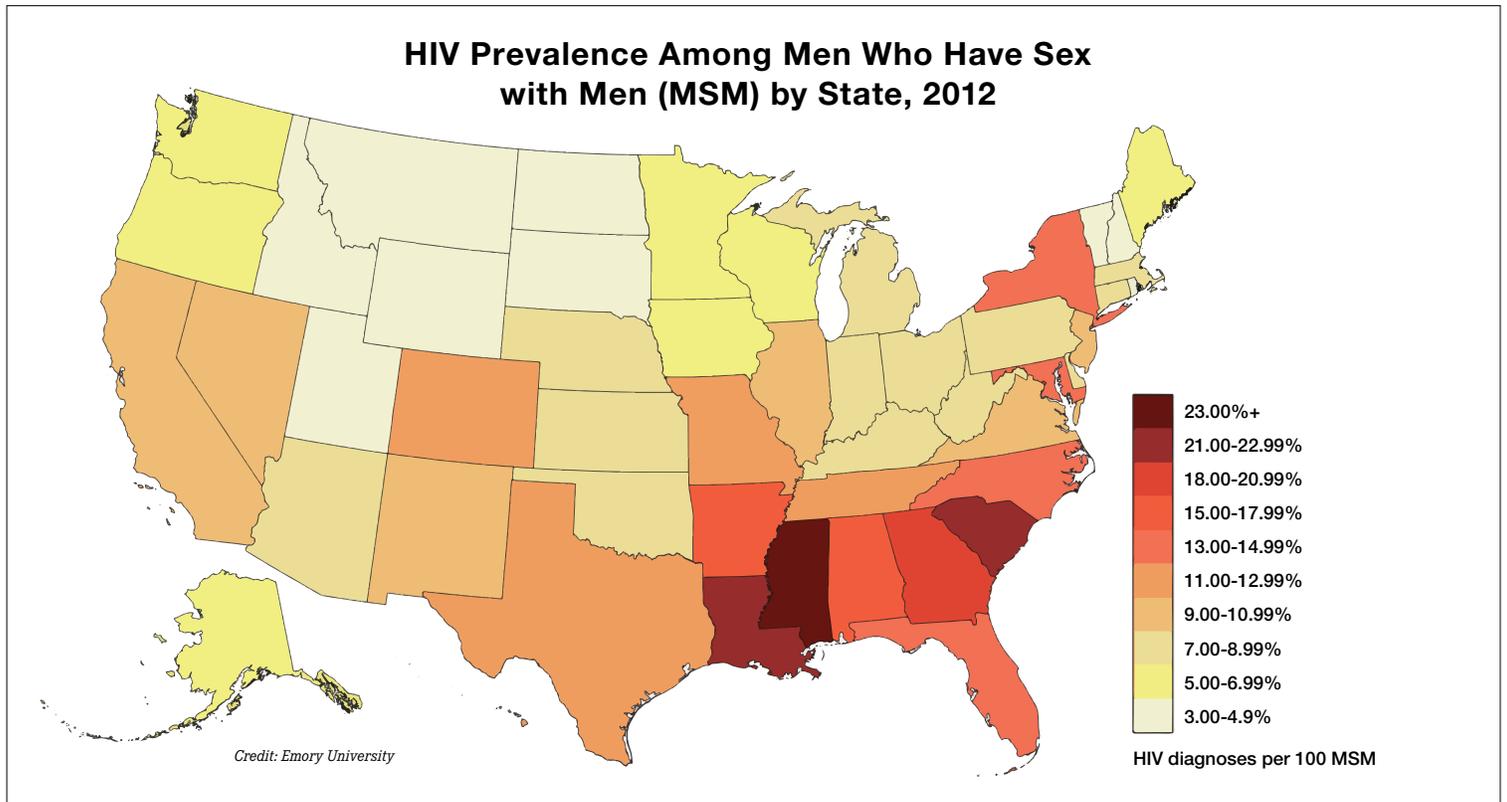
with HIV in Jackson, MS; Columbia, SC; El Paso, TX; Augusta, GA; and Baton Rouge, LA.

Previous studies have shown that the Southern U.S. has the highest rates of HIV diagnoses overall, and that people living with HIV in the South are less likely to know that they are infected and less likely to receive care and treatment.

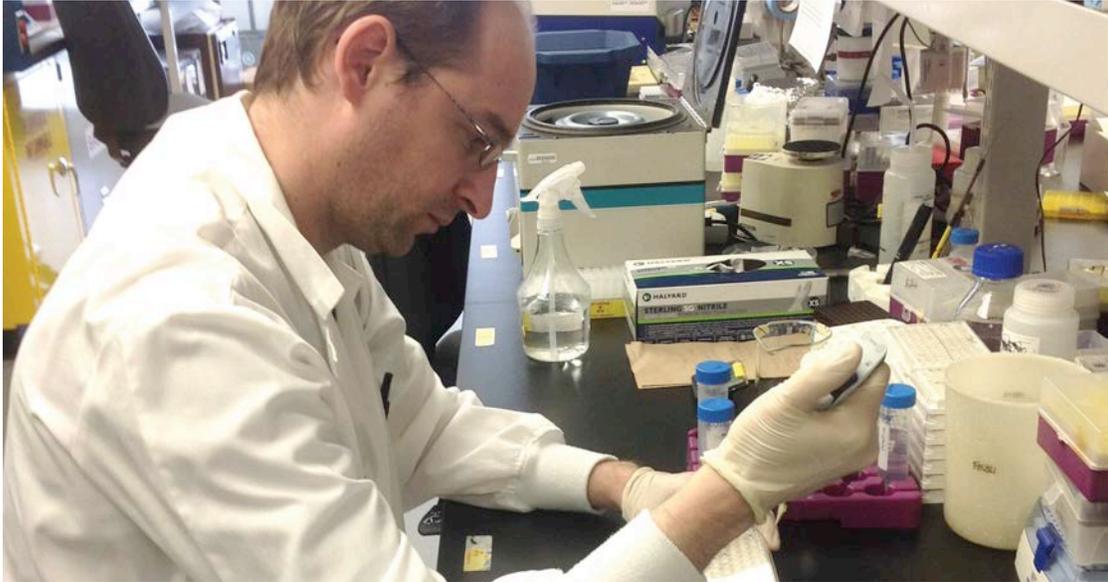
"This analysis is the next step in a pivot of prevention services," said Greg Millett, amfAR vice president and director of public policy. "The first pivot was toward greater investments in the Southern U.S. where most HIV infections are taking place. The next pivot that these data suggest is to focus prevention services primarily on gay and bisexual men across the country, especially in the South."

The analyses were funded in part by a Centers for Disease Control and Prevention cooperative agreement with the Rollins School of Public Health and used CDC HIV surveillance data.

"We have more tools than ever before to stop HIV, including testing, ongoing HIV care and treatment, condoms, behavioral risk reduction, and PrEP (pre-exposure prophylaxis)," said Dr. Jonathan Mermin, director of CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention. "If we deliver these tools where they're needed most, we can have a tremendous impact on the epidemic."



# amfAR Research Funding Targets Biggest Roadblocks to HIV Cure



amfAR grantee Dr. Andrés Finzi of Université de Montréal

In June, amfAR announced a new round of cure-focused research awards to seven scientists totaling approximately \$1.4 million. The grants will support the researchers in their efforts to better understand why HIV persists in the body despite antiretroviral therapy (ART) and to pursue novel pathways to a cure. The round of Innovation Grants was supported in part by the Foundation for AIDS and Immune Research (FAIR).

While ART can successfully suppress HIV to nearly undetectable levels, once treatment stops, the virus quickly rebounds due to the presence of a persistent viral reservoir that remains dormant in the body. It is this reservoir that presents the biggest obstacle to a cure.

“As we continue to build the science around a cure, these research projects will fill some critical gaps in knowledge about the persistence of viral reservoirs, and will undoubtedly inform future clinical studies aimed at finding a cure for HIV,” said amfAR CEO Kevin Robert Frost.

The new grants are the latest to be awarded under amfAR’s \$100 million Countdown to a Cure for AIDS initiative, which is aimed at developing the scientific basis for a cure by

2020. Each grantee will receive up to \$200,000 over two years to test novel research ideas supported by limited preliminary data.

One study seeks to identify those cells harboring HIV in a sea of uninfected cells. Another aims to

understand how the human DNA surrounding the virus affects our ability to remove HIV from infected cells. One of the researchers is testing new methods for measuring reservoir virus that are faster, easier and more efficient, so that scientists can assess whether viral load is decreasing in response to a potential cure intervention. Another research team is working to determine whether some populations of infected people have smaller reservoirs than others and thus may be easier to cure.

“As we sharpen our focus on finding a cure for HIV, supporting new lines of inquiry remains a vital part of amfAR’s overall strategy,” said amfAR Vice President and Director of Research Dr. Rowena Johnston. “The approaches our new grantees are using to crack some of the most challenging questions in cure research today truly deserve the moniker: innovation.”

## Kenneth Cole Honored at AIDS Research Conference



In recognition of his 30 years of leadership in the fight against AIDS, amfAR Chairman Kenneth Cole was honored with the first ever special recognition award at the annual *Conference on Retroviruses and Opportunistic Infections* (CROI) in Boston on February 22.

“Social responsibility and caring for others is an inherent trait of Ken’s,” said Dr. Scott Hammer of the CROI Program Committee in presenting the award. “Ken has mobilized the artistic, creative and general communities to fight stigma and to raise many millions of dollars to support research.”

Also honored were two highly respected veterans of AIDS research and public health, Dr. Bruce Walker of Ragon Institute of MGH, MIT and Harvard, and Dr. Gerald Friedland of Yale School of Medicine.

# New amfAR Grant Addresses Key Challenge in Cure Research

It sounds deceptively simple, but one of the greatest challenges in HIV cure research is how to establish whether a person has been cured. This issue must be solved before the results of clinical trials testing various methods of curing HIV can be compared.

Aiming to come up with a solution, in June, amfAR awarded a \$672,000 grant to a research team led by Dr. Timothy Schacker of the University of Minnesota, Minneapolis. Dr. Schacker will collaborate with a pair of leading investigators at the amfAR Institute for HIV Cure Research, Drs. Steven Deeks and Mike McCune of the University of California, San Francisco.

Currently, the most definitive method of gauging whether someone has been cured involves taking the subject off antiretroviral therapy (ART) and determining whether virus grows—rebounds—in the blood, indicating that replication-competent virus remains in the person’s body. The key question is: How long does it take for virus rebound to occur? And can we find some biological predictor of rebound?

Rebound may take weeks to months—or even years, as was the case in the “Mississippi child” (see sidebar). The longer it takes for the virus to rebound, the closer the intervention is likely to have come to curing the patient.

While waiting to see if the virus starts to grow, blood must be drawn frequently and tested for



the presence of HIV, which is both expensive as well as time-consuming and arduous for the patient. Ideally, scientists should be able to measure something in the blood or tissues that will indicate whether a patient is cured, without having to take the patient off ART.

Drs. Schacker and Deeks will lead a study aimed at discovering such a measure. They will enroll patients on ART and take samples of blood and tissues before taking them off treatment. With ART stopped and while waiting for virus rebound,

they will take multiple blood samples and test them for the presence of the virus.

Once HIV becomes detectable in the blood, the patients will restart ART and intensive blood and tissue sampling will be performed again.

The researchers will look for indicators in the blood and tissues that predict a longer delay to rebound. They will investigate factors such as the extent to which virus is actively replicating, the size of the reservoir, and gender.

“This is a complex but enormously important study,” said Dr. Rowena Johnston, amfAR’s vice president and director of research. “If successful, it will provide researchers with an indispensable tool for gauging the success of potential cure interventions.”

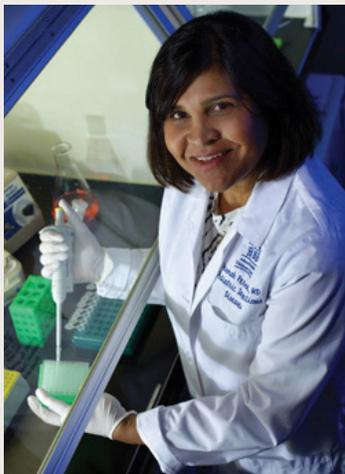
Announced in June, the new grant was awarded under the auspices of ARCHE, the amfAR Research Consortium on HIV Eradication. The consortium was established in 2010 as a means of promoting multi-site collaboration on cure-focused research.



*Dr. Timothy Schacker*

## The Mississippi Child

In March 2013, Dr. Deborah Persaud of Johns Hopkins Children’s Center in Baltimore, an amfAR grantee, detailed the case of a 2-year-old child in Mississippi diagnosed with HIV at birth and immediately put on treatment. At 18 months, the child ceased taking ART and was lost to follow-up. When brought back into care at 23 months, despite being off treatment for five months, the child was found to be free of the virus. A battery of subsequent highly sensitive tests was unable to find any HIV. Finally, in July 2014, after being off ART for more than two years without evidence of HIV, researchers determined that the virus had rebounded.



*Dr. Deborah Persaud*

# Using Antibodies to Block Mother-to-Infant Transmission of HIV ... and Develop a Cure?

Jeffrey Laurence, M.D., Senior Scientific Consultant for Programs at amfAR

amfAR-funded researchers have reported some intriguing findings, based on studies of powerful antibodies, that could have important implications both for HIV prevention and cure.

Dr. Nancy Haigwood and colleagues at Oregon Health and Science University and the National Institutes of Health examined mother-to-child transmission in monkeys of a hybrid AIDS virus known as SHIV, which contains elements of both HIV and the simian AIDS virus, SIV. More than

skin at one, four, seven, and 10 days following exposure. The control monkeys, exposed to the virus but not given the antibodies, were found to have growing virus in their tissues as early as 24 hours following infection. (It was previously thought that it takes several days for HIV to take hold in the body.) In contrast, all antibody-treated monkeys were found to be free of virus in their blood and tissues within two weeks and throughout a six-month follow-up period.

for effective prevention of HIV transmission after exposure during birth.

But the clear potential for this work to impact cure strategies may be equally exciting. This may be the first demonstration that antibodies can clear viral reservoirs after infection has been established. And anything that can affect HIV reservoirs is of strong interest to cure researchers.

This point is now being aggressively pursued by amfAR Krim Fellow Dr. Stylianos Bournazos and associates working in the laboratory of Dr. Jeffrey Ravetch at The Rockefeller University in New York. Writing in a May issue of the prestigious journal *Science*, the researchers reported utilizing a single broadly neutralizing anti-HIV antibody to target infected CD4+ T cells in mice with a humanized immune system (i.e., mice that have been injected with human stem cells). They found that the survival of infected cells could be greatly decreased by this antibody through a process involving an immune receptor known as Fc gamma.

The authors concluded with this promising statement: “The finding that antibodies can clear infected cells in vivo has important implications for therapies aimed at HIV prevention and viral reservoir reduction or elimination.”

**“The finding that antibodies can clear infected cells ... has important implications for therapies aimed at HIV prevention and viral reservoir reduction or elimination.”**

200,000 infected infants are born annually to HIV-positive mothers in countries where prenatal care and antiretroviral therapy (ART) are not readily available.

Writing in the April issue of the prominent journal *Nature Medicine*, Dr. Haigwood and her colleagues reported employing a “passive immunotherapy” strategy based on a cocktail of two potent monoclonal antibodies, isolated from patients with HIV, capable of neutralizing a broad spectrum of AIDS viruses.

One-month-old macaques were orally exposed to SHIV. The monkeys in the experimental group were injected with the antibodies under the

The study suggests that the antibodies could potentially be a less toxic alternative to ART, if they prove to be effective in preventing early HIV infection in humans. This may be particularly important over the long periods of breast-feeding typical of many cultures. ART has a short half-life and requires strict adherence, while antibodies have very much longer periods of activity requiring far fewer doses. Ongoing studies should help define the window of opportunity

‘Antibodies as an important Part of an #HIV Cure Strategy’ w/amfAR’s Dr. Jeffrey Laurence: [amfar.org/antibodies-cure...](http://amfar.org/antibodies-cure...) @amfAR



Left to right: Philip Barnette, Nancy Haigwood, Jonah Sacha, Bill Sutton, Ann Hessell, Shilpi Pandey, and Tracy Cheever.

# Launching the amfAR Institute for HIV Cure Research

Paul Volberding, M.D., Director, amfAR Institute for HIV Cure Research



Left to right: Dr. Paul Volberding, amfAR CEO Kevin Robert Frost, amfAR Chairman Kenneth Cole, and HIV activist and educator Matt Sharp. Photo: Getty

HIV can be an easily treated chronic infection, but none of my patients would choose to take lifelong medications if a cure were possible. Fortunately, amfAR has brought new hope in the search for a cure.

When the Foundation announced last spring that it was seeking applications for an ambitious team approach to finding an HIV cure, our scientists in San Francisco and our collaborating partners responded enthusiastically. In an amazingly short time, and with countless meetings and thousands of emails, our “dream team” came together and laid out our proposal. In the course of that planning, the energy was electric.

Our university leadership volunteered to help in ways I’d never experienced in the 35 years of our battle against AIDS. That support from our institution was key in our eventual success.

Our scientific team is impressive in the expertise they bring from the very different fields needed in our cure search. I was chosen to lead this team given my record of building effective collaborations, and each of the four primary scientists has assembled his own group of colleagues with whom he will work.

Mike McCune at UCSF is an immunologist who will focus on the target of a cure, the

latent HIV reservoir, as it functions within tissues. Warner Greene at the Gladstone Institutes, an immunologist and virologist, will apply fundamental laboratory approaches to understand how latency is established and how drugs may function to reverse it. Satish Pillai at Blood Systems Research Institute is an evolutionary biologist whose work seeks better methods for quantitating the size of the HIV reservoir through sophisticated laboratory and imaging techniques. And finally, Steve Deeks at UCSF is an innovative clinical investigator who will lead the human trials of drugs we identify to activate and eliminate the latent reservoir. All research modules will have access to several core facilities including basic science labs and clinical and animal services in which our ideas will be tested.

Our group, now the amfAR Institute for HIV Cure Research, is committed to a level of communication, collaboration, and innovation we think is unique in all our other work. We will set goals for rapid progress, test our progress against those goals, and immediately redirect

our effort and resources to stay on the shortest path to our goal of an HIV cure.

Furthermore, this all will be done in a deep partnership with amfAR itself. The Foundation’s chief scientist, Rowena Johnston, is embedded in our leadership and participates in all our discussions and planning. Our leadership group

meets frequently and in person at our Institute home at the central and cutting-edge UCSF Mission Bay campus.

We are proud to have been chosen by amfAR to lead this crucial enterprise and look forward to

sharing our progress with the Foundation’s leaders and supporters. The amfAR Institute for HIV Cure Research is off to a very promising and flying start!

*Dr. Volberding is Professor of Medicine at UCSF, director of the UCSF AIDS Research Institute, and co-director of the UCSF-Gladstone Center for AIDS Research.*

**“Our group ... is committed to a level of communication, collaboration, and innovation we think is unique in all our other work.”**

# Cure Research Roundup

## ► Boosting the Immune Response

The first published findings to be generated by researchers at the amfAR Institute for HIV Cure Research appeared in the prestigious journal *Nature Medicine* in June. Researchers at the San Francisco VA Medical Center (SFVAMC), led by research associate Dr. Peilin Li and including the amfAR Institute's Dr. Warner Greene, report that a substance called retinoic acid can stimulate immune cells to eliminate HIV-infected cells. "The potential to exploit our innate immune response to both 'shock and kill' latent HIV reservoir cells is exciting," Greene said. "Shock and kill" refers to using a drug to induce persistently infected cells to produce HIV so that the immune system can detect and kill them. "Bringing these first-line immune defenses to bear could speed progress in our search for an HIV cure," Li said.

## ► Forcing Persistent Virus to Reveal Itself

In a second amfAR Institute paper, published in June in *PLOS Pathogens*, scientists at Blood Systems Research Institute (BSRI) and UCSF reported that a compound called galectin-9 can force latent HIV-infected cells to reveal themselves to the immune system for eradication. Dr. Satish Pillai, associate investigator at BSRI and a lead researcher at



the amfAR Institute, and his team found that by binding galectin-9 to the surface of HIV-infected cells, they can simultaneously restart virus production (i.e., reverse latency) and induce APOBEC3G, a naturally occurring antiviral protein that renders progeny virus uninfected. "Our findings make us optimistic that future HIV treatments can eliminate all traces of the virus from the body," Pillai said. "Ultimately, we hope galectin-9 gets us one step closer to a cure."

## ► Gene Therapy Think Tank

Consistent with amfAR's commitment to investigate every avenue that might lead to a cure, the Foundation regularly hosts think tanks that bring together leading investigators in various fields. Such a think tank took place in Portland, OR, June 24-26, when 10 gene therapy experts were invited to discuss this particular approach to curing HIV. While pharmacological and immunological approaches remain the dominant cure strategies, the only HIV cure documented to date involved a procedure that points to the promise of gene therapy. The researchers assessed progress to date, discussed the various gene therapy strategies currently being pursued, and developed recommendations for further advancing the field.

## ► Cutting-Edge Imaging Technologies

One of the four research modules within the amfAR Institute, headed by Dr. Satish Pillai of Blood Systems Research Institute, is charged with developing methods of accurately determining the size of the HIV reservoir. In some instances, this may mean being able to detect one persistently infected cell out of a billion—or even tens of billions—of cells. Among the tools being applied in this effort, Dr. Pillai and his team are using medical imaging techniques such as PET and CT scans to directly visualize the presence and distribution of persistently infected cells. These technologies have the advantage of being noninvasive and give researchers the ability to scan the whole body and take a snapshot of the relative burden of virus in tissues throughout the body. A June 6 symposium at UCSF, organized by the amfAR Institute, brought researchers together to review the latest imaging techniques and discuss their potential for assessing the effectiveness of experimental cure interventions.

# Krim Fellow Graduates to NIH Grant

A Mathilde Krim Fellowship from amfAR enabled Dr. Angela Wahl to publish important research on the protective effects of breast milk in inhibiting HIV. She did her research as a postdoctoral associate at the University of North Carolina (UNC) at Chapel Hill, under the mentorship of J. Victor Garcia, Ph.D.

Now a research assistant professor in UNC's Department of Medicine, Dr. Wahl was recently awarded a Research Project Grant (R01) from the National Institutes of Health (NIH) to study how human gut microbiota affects rectal acquisition

and development of HIV. The coveted R01 grant establishes a scientist's independence, providing significant research dollars and allowing the principal investigator to hire junior scientists as research staff. It is very unusual for a researcher just completing a postdoctoral program to receive the R01.

"Because the Krim fellowship is viewed in the HIV field as a highly selective and prestigious award, I was specifically advised by the NIH program officer to highlight that I was a recipient of a Krim award," Dr. Wahl said.



Dr. Angela Wahl

## A Word of Thanks

The work of amfAR is made possible by generous donors in the U.S. and around the world—people living with HIV, their friends and loved ones, other concerned individuals, foundations, and corporations large and small. Our donors share our commitment to the innovative research that will ultimately yield a cure for HIV and bring the global epidemic to an end, and we're deeply grateful to each and every one of them.



At M·A·C, we share amfAR's goal of ending AIDS.

For over 20 years, M·A·C has donated the total selling price of each and every VIVA GLAM lipstick, raising over \$425 million for a wide range of AIDS organizations. The M·A·C AIDS Fund has been proud to support amfAR since 2000. We are completely committed to ending this epidemic and will continue to support organizations such as amfAR that get us closer and closer to an end.

John Demsey, Chairman of the M·A·C AIDS Fund Board and Group President of The Estée Lauder Companies Inc.

HEARST *foundations*

The relationship with amfAR has been exceptionally rewarding.

We have a longstanding commitment to medical research and the advancement of young scientists working across diverse fields, including AIDS-related research. Our grants over the last 25 years have supported researchers whose work has led to the development of the most prominent drugs being used today to effectively address HIV and AIDS along with new treatments for non-HIV-related immune deficiencies.

Ligia Cravo, Senior Program Officer, The Hearst Foundations



Adam Sank with his sisters Anna and Laura and parents Phyllis and Lewis

We are happy to support amfAR in its mission to end the HIV/AIDS epidemic.

It is so vitally important not only to the well-being of our son but also to everyone living with HIV around the world.

Phyllis & Lewis Sank

As a healthy person who's been living with HIV for over a decade,

I am grateful to amfAR for its work in the development of effective HIV treatments and, one day, a cure for this disease.

Adam Sank

## NIH Renews \$10 Million Research Grant to TREAT Asia

For the past 10 years, amfAR's TREAT Asia program has been leading the Asia-Pacific region's involvement in the National Institutes of Health's global HIV consortium, IeDEA—the International Epidemiologic Databases to Evaluate AIDS. IeDEA comprises seven regions that also cover North America, the Caribbean, Central and South America, and sub-Saharan Africa.



IeDEA is the core of TREAT Asia's research program and is implemented together with the Kirby Institute at the University of New South Wales, Australia, the program's data management and biostatistical analysis partner.

The funding renewal will support studies across 58 institutions in 13 countries on emerging and critical issues facing people with HIV who are transitioning from pediatric to adolescent care, and aging into older adults. Future research will evaluate how risks for chronic diseases such as hypertension, heart disease, and diabetes may differ by HIV status and treatment history. The grant will also fund projects to evaluate mental health issues for adolescents, explore how amphetamine use impacts HIV risk behaviors

*Dr. Matthew Law of the Kirby Institute, UNSW Australia, and Dr. Annette Sohn, co-principal investigators for the IeDEA Asia-Pacific program*

among men who have sex with men and transgender individuals, and enhance the use of eHealth technologies to engage and retain people in treatment.

amfAR's new five-year cycle is supported by the National Institute of Allergy and Infectious Diseases, the Eunice Kennedy Shriver National Institute of Child Health and Human Development, the National Cancer Institute, the National Institute of Mental Health, and the National Institute on Drug Abuse.

“We are grateful for the opportunity to continue our global collaborations, and to our regional networks and many partners for their critical support,” said Dr. Annette Sohn, director of TREAT Asia and co-principal investigator on the grant. “Our overall objective for the IeDEA Asia-Pacific program is to answer research questions that will guide clinicians and policymakers on how we can improve treatment delivery as well as prevent comorbidities and new HIV infections.”

# TREAT ASIA

## Improving Pediatric HIV Treatment in Asia

The HIV medicine efavirenz remains the standard first-line therapy for young people with HIV in the Asia-Pacific region. But while it is highly effective, it sometimes causes serious side effects, including headaches, nightmares, depression, and increased cholesterol and triglyceride levels. Because these side effects can lead to poor adherence, risking treatment failure and drug resistance, clinicians and researchers have looked for alternatives.

The antiretroviral drug rilpivirine, which was approved for adults in 2011, causes fewer side effects than efavirenz, but there is limited experience with using it in children and adolescents. Dr. Wanatpreeya Phongsamart, an investigator with amfAR's TREAT Asia Network, is leading a study to test rilpivirine's effectiveness in Asian adolescents in the hope that it can be a treatment option.

“We hope that switching to rilpivirine will improve the quality of life of adolescents, so that their adherence will be better and they won't develop resistance,” said Dr. Phongsamart, a pediatric physician at Siriraj Hospital in Bangkok.



*Dr. Wanatpreeya Phongsamart*

Resistance to antiretroviral therapy poses health challenges for anyone with HIV, but is especially challenging for young people facing a lifetime of HIV treatment. In addition, the second- and third-line medicines needed when people develop treatment failure and drug resistance are more expensive, making it harder to ensure access to effective therapy in low- and middle-income countries.

Dr. Phongsamart's two-year study, which is supported by the Thai government, Siriraj Hospital, and amfAR, aims to enroll 100 HIV-positive adolescents ages 12–18 currently taking efavirenz at four sites in Thailand. Her team will evaluate the impact of switching the patients to rilpivirine, including their levels of viral suppression, neurological outcomes, and adherence and resistance rates.

## A Mission to Mobilize HIV Communities Worldwide

*Chris Collins is chief of the Community Mobilization Division at UNAIDS. He has worked in HIV advocacy and policy for over 20 years, including serving as amfAR vice president and director of public policy for five years. He helped drive the creation of the first U.S. National HIV/AIDS Strategy, co-founded and served as executive director of AVAC: Global Advocacy for HIV Prevention, and designed key legislation to advance HIV research. In a recent interview, he spoke with amfAR about the current focus of his work.*

**amfAR:** How is the mobilization of communities most affected by HIV a critical part of the UN's or any plan to end AIDS?

**Chris Collins:** There won't be dramatic progress on the AIDS epidemic without a fully engaged, energized community. All over the world, community activists created the AIDS response, refusing to accept it when governments turned away from the issue or ignored groups most affected by the virus. Many of the biggest challenges ahead in tackling AIDS—like reaching key population groups, creating demand for services, delivering treatment and prevention, and advocating for smart policy and more investment—depend on a more engaged, better supported community.

**amfAR:** What are your priorities for the Community Mobilization team and how are you ensuring they are addressed to meet needs at both global and local levels?

**Collins:** First, we need to support advocacy. Advocates are focused on a whole range of areas—advancing human rights, scaling up services, tackling intellectual property barriers, and making sure gains are not lost as donors withdraw funding from middle-income countries. We have to support civil society advocates in pushing for these priorities and recognize the connection between progress on rights and public health goals. Second, we have to be a fierce promoter of the community role in addressing AIDS, both by delivering services and being advocates. Many community groups are under serious financial strain. Many have shut

down, and others are threatened by decreasing support. An article in *The Lancet* special issue, “Defeating AIDS,” recently observed that advocacy is a “global public good.” It needs ongoing support just like any other part of the response to AIDS.

**amfAR:** Although we have accomplished a great deal in the global response, some in the AIDS community are worried that UNAIDS's recent positive messaging is being interpreted as an indication that the global epidemic is already under control. How is your team responding to that concern?

**“There won't be dramatic progress on the AIDS epidemic without a fully engaged, energized community.”**

**Collins:** UNAIDS is saying we have to “Fast Track” delivery of HIV treatment and prevention and progress on human rights. We need to increase investment and speed up implementation and delivery. Right now, donor resources are flat-lined and many millions of people are not getting services they need. Without an accelerated and more equitable response, the AIDS epidemic is going to be around for decades, and that's a tragedy, particularly because it isn't necessary with all the effective treatment and prevention approaches we have. We need both ambitious targets and acknowledgment of the big challenges—and specific approaches for tackling those challenges.

**amfAR:** How will HIV be integrated into the new Sustainable Development Goals [SDGs] now that HIV is being perceived as less of an immediate priority than in the earlier Millennium Development Goals?

**Collins:** The updated UNAIDS Strategy builds global targets around five of the SDGs, including those for good health, gender equality, reduced inequities, just and peaceful societies, and global partnerships. A truly effective response to AIDS will be a leading edge in progress on these goals. For example, we won't be able to bring down HIV incidence among young women and girls in Southern Africa unless we do better at helping girls stay in school, change gender norms, advance girls' and women's equality, and deliver health interventions that work, like treatment and PrEP. The AIDS movement has always been a movement for equity, with a global vision. And that's the spirit of the SDGs.

*The full interview is available at [www.amfar.org/A-Mission-to-Mobilize-HIV-Communities-Worldwide/](http://www.amfar.org/A-Mission-to-Mobilize-HIV-Communities-Worldwide/)*



*Chris Collins (left) and UNAIDS Executive Director Michel Sidibé at the “All In” to end adolescent HIV meeting, held Dec. 3-5, 2014, in Geneva, Switzerland. (Photo courtesy of UNAIDS)*

## amfAR/Pitt Scholars: An Innovative Solution to a Pressing Need



2016 amfAR HIV Scholars Daniel Dutra de Barros, Dr. Antonio Spagnolo, Kabelo Maleke, and Adi Nugroho

Dr. Antonio Spagnolo knows how isolating it can be living as a gay man in Paraguay. Stigma keeps many gay men, other men who have sex with men, and transgender individuals (collectively, GMT) from seeking public health care services.

“It leads to major health disparities, including undiagnosed cases of HIV and other sexually transmitted infections (STIs) among MSM and trans women,” said the 27-year-old. “I want to find a way to help people in my country who have been hit hard by HIV and other STIs.”

**“There is a lot of discrimination against gay men and trans women ... There is no way we can find out how to change this if we don’t do this type of research.”**

Dr. Spagnolo is one of four participants in the 2016 amfAR HIV Scholars program at the University of Pittsburgh’s Center for LGBT Health Research. The program supports the creation of public health responses to HIV health disparities among GMT in low- and middle-income countries. It has supported 16 young investigators to date.

Studies show that GMT are disproportionately impacted by HIV in virtually every region of the world. This is compounded by a widespread lack of access to appropriate HIV prevention, treatment, and care for people in numerous countries, explained program director Dr. Ron Stall.

“In turn, this has produced a disproportionate and devastating burden of HIV morbidity and mortality among GMT populations in countless settings,” he said.

During the 18-month program, which includes five months of study in Pittsburgh, scholars improve their research skills and draft proposals to conduct studies investigating culturally appropriate strategies to improve HIV services for GMT individuals in their respective countries. The program includes four research awards of \$25,000 each that support the scholars’ in-country studies.

The other 2016 scholars are Daniel Dutra de Barros of Santa Casa de São Paulo School of Medical Sciences in Brazil; Kabelo Maleke, of Project Boithato at the Anova Health Institute in rural South Africa; and Adi Nugroho, of the GWL-INA network in Jakarta, Indonesia.

Dr. Spagnolo, who finished medical school last year, has proposed analyzing health outcomes in two contrasting clinical scenarios: a GMT-oriented clinic run by a nongovernmental organization called SOMOSGAY (We Are Gay) and a government-

sponsored one – PRONASIDA (National Program for Control of AIDS/STI). SOMOSGAY provides HIV/STI testing, counseling, treatment and care coordination in a “space designed to combat stigma and discrimination.” It is prohibited from distributing medication but can expedite access to treatment.

“There is a lot of discrimination against gay men and trans women, especially,” Dr. Spagnolo said. “There is no way we can find out how to change this if we don’t do this type of research.”



Dr. Ron Stall is the director of the amfAR HIV Scholars Program at the University of Pittsburgh.

amfAR is actively collaborating with the University of Pittsburgh to identify new sources of funding to help ensure that the program continues when amfAR’s support expires at the end of 2017.



## amfAR New York Gala

Academy Award-winning film producer Harvey Weinstein was honored at the 18th annual amfAR New York Gala on February 10 for his longtime support of amfAR and exceptional contributions to the global struggle against HIV/AIDS. Robert De Niro presented the amfAR Award of Courage to Weinstein with a heartfelt personal tribute. Leonardo DiCaprio, Jay Z, Harvey Keitel, Heidi Klum, Diane Kruger, Uma Thurman, Andy Cohen, and amfAR Chairman Kenneth Cole were among those in attendance at the gala, which raised more than \$2 million for amfAR's lifesaving AIDS research programs.

**Special thanks:** Harry Winston, M•A•C Viva Glam, Moët Hennessy, Mandarin Oriental, New York, FIJI Water, Delta Air Lines (Photos: amfAR and Kevin Tachman)



Proud to be supporting @amfAR at the #amfARNewYork Gala this evening. All in support of the global fight to end #AIDS.



@HeidiKlum



## generationCURE Holiday Party

About 300 young professionals joined generationCURE Ambassador Emerson Barth and amfAR CEO Kevin Robert Frost at the generationCURE Holiday Party on December 3 at the Oak Room in New York City. The event, which featured a special performance by Joelle & The Pinehurst Trio, raised \$93,000.

1. Leonardo DiCaprio and Robert De Niro 2. Tommy Hilfiger and amfAR Chairman Kenneth Cole 3. Uma Thurman and Harvey Keitel 4. Honoree Harvey Weinstein, Jay Z, Robert De Niro, and Harvey Keitel 5. British pop sensation Charli XCX performed an explosive set of her top hits "Doing It" and "Boom Clap." 6. Blake Lively and Ryan Reynolds 7. Honoree Harvey Weinstein, Georgina Chapman, Constance Jablonski, Karlie Kloss, and Jourdan Dunn



# amfAR Hong Kong

Uma Thurman presented the amfAR Award of Courage to Victoria Beckham for her work as a UNAIDS International Goodwill Ambassador and her passionate commitment to ending the global AIDS epidemic at the second annual amfAR Hong Kong gala on March 19. Event Chair Pansy Ho, Adrien Brody, Karolina Kurkova, Michelle Rodriguez, amfAR Ambassador Michelle Yeoh, and amfAR Chairman Kenneth Cole were among those in attendance at the event, which raised more than \$4 million for amfAR. The gala featured performances by Elle King, Aloe Blacc, and Lang Lang.



**Special thanks:** Harry Winston, Calvin Klein Collection, American Express, Audi, Moët Hennessy, Delta Air Lines, JOLLYONE and SMI Holdings Limited, The Upper House, Poly Auction, Boroli Wines, Island Shangri-La Hong Kong (Photos: amfAR, Getty Images, Ryan Emberley)



1. amfAR Chairman Kenneth Cole, Event Chair Pansy Ho, and Adrien Brody 2. Honoree Victoria Beckham 3. Aloe Blacc ended the evening with a set of his biggest hits, including "Candyman," "I Need a Dollar," "The Man," and "Wake Me Up." 4. Michelle Rodriguez and amfAR Global Fundraising Chairman Milutin Gatsby 5. amfAR Hong Kong 6. amfAR Ambassador Michelle Yeoh 7. Honorary Chair Uma Thurman 8. Elle King gave a sultry acoustic performance of her Grammy-nominated hit song "Ex's and Oh's."

Thank you @amfAR! Was such an honour to be acknowledged for a cause so close to my heart x vb #amfARHongKong @UNAIDSGlobal 





## Inspiration Gala São Paulo

Naomi Campbell, Dinho Diniz, Felipe Diniz, and Riccardo Tisci hosted the sixth annual amfAR Inspiration Gala São Paulo on April 15 at the São Paulo home of Dinho Diniz. Marc Jacobs, Isabeli Fontana, and Sabrina Sato were among those who gathered to honor Kate Moss, Dean Caten, Dan Caten, and Carlos Jereissati Filho for their commitment to the fight against AIDS. The gala featured spectacular live performances by Ricky Martin and Brazilian artist Ivete Sangalo. During the auction, a kiss with Ricky Martin sold for \$90,000. The event raised more than \$1.6 million.

**Special thanks:** Harry Winston, Andressa Salomone, Iguatemi São Paulo, Karavelle, Moët Hennessy, Fasano, Mercedes-Benz, Schutz, Vogue Brasil (Photos: amfAR, Getty Images, Ryan Emberley)



Proud to receive @amfAR Award of Inspiration. #amfARInspiration #dsquared2 @IsabeliFontana #proud - @DSquared2



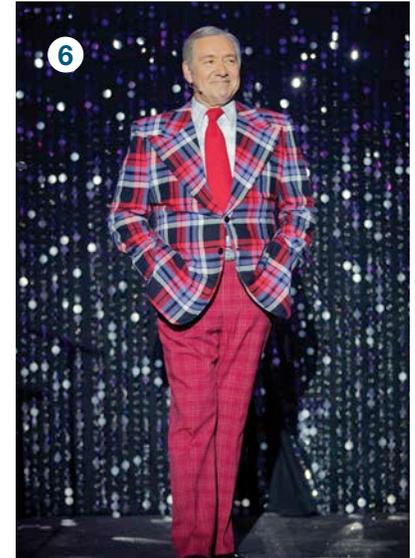
1. amfAR CEO Kevin Robert Frost, Honoree Kate Moss, and Marc Jacobs 2. Honoree Carlos Jereissati Filho 3. Brazilian artist Ivete Sangalo joined Ricky Martin on stage for a duet of "Livin' La Vida Loca." 4. Riccardo Tisci and Naomi Campbell 5. Dinho Diniz 6. Ricky Martin brought the crowd to their feet with a set of his biggest hits, including "La Bomba," "Pégate," and "The Cup of Life." 7. Honorees Dean and Dan Caten, with Isabeli Fontana 8. Felipe Diniz



## Cinema Against AIDS 23

Impersonating Johnny Carson, Bill Clinton, Jack Lemmon, Al Pacino, and Frank Underwood, Kevin Spacey was a colorful host of the 23rd Cinema Against AIDS gala in Antibes, France, during the Cannes Film Festival on May 19. The event, which raised more than \$25 million, featured a dazzling Disco Collection runway show curated by Carine Roitfeld. The collection, showcased by 32 of the world's top models, was then auctioned off in its entirety by Uma Thurman for \$1.7 million. Dame Helen Mirren and Adrien Brody helped auction off a series of Andy Warhol Polaroids for \$160,000. Guests—including Harvey Weinstein, Leonardo DiCaprio, amfAR Ambassador Milla Jovovich, Heidi Klum, Faye Dunaway, and amfAR Chairman Kenneth Cole—enjoyed musical performances by Katy Perry, The Village People, Sister Sledge, and The Bluebell Girls.

**Special thanks:** Harry Winston, Bold Films, Moët Hennessy, Renault, The Weinstein Company, Moncler, and Delta Air Lines (Photos: amfAR, Getty Images, Kevin Tachman)



1. Global pop sensation Katy Perry performed some of her top hits, including "Roar," "Teenage Dream," "I Kissed a Girl," "Dark Horse," and "Firework." 2. amfAR Ambassador Milla Jovovich 3. amfAR Chairman Kenneth Cole showcases the Foundation's new fragrance 4. amfAR Global Fundraising Chairman Milutin Gatsby and amfAR CEO Kevin Robert Frost 5. Heidi Klum 6. Host Kevin Spacey 7. Dame Helen Mirren 8. Alessandro Ambrosio was one of 32 top models who participated in the Disco Collection fashion show curated by longtime amfAR supporter Carine Roitfeld

“ Supporting amfAR is at the core of Moët Hennessy’s Corporate Social Responsibility policy and in line with the pioneer spirit ingrained in the DNA of all its Maisons. amfAR exemplifies this spirit of conquest and innovation as the organization pushes boundaries and harnesses new technologies in the fight against HIV/AIDS.”

Christophe Navarre  
Chief Executive Officer, Moët Hennessy



Moët Hennessy has supported amfAR’s fundraising activities and programs around the world for nearly a decade. As the Official Wine and Spirits Partner of amfAR, Moët Hennessy has generously contributed to amfAR’s fundraising galas, charity auctions, and amfAR’s young professional group, generationCURE.

Because of partners like Moët Hennessy, amfAR is extending and saving millions of lives around the globe and working to end the AIDS epidemic.

Moët Hennessy

## Upcoming Events

- |              |   |
|--------------|---|
| September 24 | amfAR Milano<br>Milan, Italy                            |
| October 22   | TWO x TWO for AIDS and Art<br>Dallas, Texas             |
| October 27   | Inspiration Gala Los Angeles<br>Los Angeles, California |
| December     | generationCURE Holiday Party<br>New York City           |

amfAR, The Foundation for AIDS Research  
120 Wall Street, 13th Floor, New York, NY 10005-3908  
[www.amfar.org](http://www.amfar.org)