A Message from the Executive Director

The UCLA AIDS Institute Leads the Way

Because prevention is our only vaccine — and because we cannot contain the HIV epidemic until we identify everyone who is infected — the Institute has launched a national campaign to encourage more widespread, and routine, testing for exposure to HIV.

Each year, on December 1st — World AIDS Day — television crews and op-ed page editors take note of the devastation that the HIV pandemic has wrought in the past quarter-century. On December 2nd, the media move on to other stories... and we go on with the work we are doing to bring an end to that devastation. In a very real sense, every day is World AIDS Day for those of us who work at the UCLA AIDS Institute.

The AIDS Institute has been leading the way in HIV education, research, and clinical care since 1981, when a team of UCLA physicians described the first cases of what we now know as AIDS. For more than two decades, the AIDS Institute has been at the forefront of efforts to contain the epidemic and provide optimal care to people living with HIV disease. Physicians at our Center for Clinical AIDS Research and Education were among the first to use protease inhibitors in seropositive patients — and were the first to demonstrate the efficacy of this drug class in pediatric patients. Researchers at the UCLA AIDS Institute were recently chosen to lead an international effort to develop safe and effective vaginal and rectal microbicides to reduce the risk of HIV transmission, and a group of researchers at the Institute have created the first heat-killed therapeutic HIV vaccine, which will be used to boost the immune systems of patients living with HIV.

Despite these advances — in the laboratory, the clinic, and the field — the HIV pandemic continues to spread like a viral firestorm across sub-Saharan Africa, Southeast Asia, and the Indian subcontinent. Not a single seropositive individual has been cured, and the prospect of an effective vaccine is at least a decade off. Today, as in 1981, the only way to halt the spread of AIDS is by preventing new infections. And the key to all prevention efforts is testing.

Unfortunately, HIV testing — like the disease itself — is heavily stigmatized, and getting tested is widely regarded as de facto admission of homosexuality or drug addiction. This misconception about who is at risk — and, therefore, who needs to get tested — hampers efforts to contain the epidemic and get those who are infected into treatment. The Centers for Disease Control estimate that hundreds of thousands of Americans are unaware that they are HIV-positive. Tens of thousands of these infected individuals are not members of what are called high-risk groups — and identifying them is crucial to containing the epidemic in this country, which continues to record more than 40,000 new infections a year. Regrettably, government-financed testing programs, faced with budget cuts, have begun to conduct risk-assessments on individuals who ask to be tested, and they routinely refuse to test applicants who do not fall into a high-risk category. This policy is one that virtually ensures that the tens of thousands of Americans who are seropositive, but do not meet the C.D.C.’s definition of “high-risk,” will not be identified.

To counterbalance — and counteract — this policy decision, the UCLA AIDS Institute is once again taking the lead, by launching an initiative to de-stigmatize HIV testing and encourage more widespread, and routine, testing for exposure to HIV. We call this campaign “Knowledge Is Power,” and it is the subject of the photo-essay on pages 4-13 of this issue. The visible manifestation of the Institute’s testing initiative is the red wristband pictured here. It is debossed with the words “I Know” — which mean any or all of the following: I know my HIV status. I know how AIDS is transmitted. I know how to avoid being infected with HIV. I know how to avoid infecting others with HIV. For information on how to order wristbands — in any quantity, in English, Spanish, or Chinese — call the UCLA AIDS Institute at (310) 794-7209.

Until we have a vaccine, prevention is our only vaccine. Dr. Gail Wyatt, whose profile appears on pages 14–15, has been an apostle of prevention-as-vaccine since the earliest days of the epidemic — which helps to explain why her work has been honored by so many professional groups, most recently the UCLA Black Alumni Association, which gave Dr. Wyatt its Lifetime Achievement Award in March.

The UCLA AIDS Institute is taking the lead in other areas as well. Our Center for Clinical AIDS Research and Education is currently conducting one of the first therapeutic trials involving adult stem cells (pages 16–25), and the Institute’s director, Dr. Irvin S.Y. Chen, recently made news with a potential treatment for cancer that uses the harmless husk of HIV to introduce anti-tumor agents into cells (page 35).

Every day is World AIDS Day at the UCLA AIDS Institute, and until the epidemic is over, we will continue to lead the way.

Edwin Bayrd
Executive Director, UCLA AIDS Institute
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Because prevention is our only vaccine, the Institute has launched a national campaign to encourage testing for exposure to HIV

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Using only the harmless husk of the virus, the Institute’s director enlists its exceptional cell-penetrating properties to deliver tumor-killing therapies to metastasizing cancer cells
Knowledge Is

UCLA AIDS Institute inaugurates a campaign to promote universal, voluntary, anonymous, free HIV testing—to bring infected individuals into treatment and to protect uninfected individuals from exposure.

On World AIDS Day 2004, the UCLA AIDS Institute launched “Knowledge Is Power,” a campaign to de-stigmatize HIV testing and encourage all sexually-active adults to get tested. Like the disease itself, testing for exposure to HIV is still thought of as something that need concern only men who have sex with men and IV drug users—even though the epidemic has moved well beyond these risk groups. In actual fact, in the United States today AIDS is disproportionately a disease of women, particularly women of color, and more particularly young women of color. African-American women are 23 times more likely to be infected with HIV than white women of the same age, and teenage girls of color account for 85% of the new infections in that age group, even though they represent only 27% the population.

The Centers for Disease Control estimate that some 300,000 Americans are HIV-positive and don’t know it. Some of these individuals are men who have sex with men, and some of them are IV drug users. But many are not. Less than half of all adult American have had an HIV test—and a third of those who are tested for HIV fail to return for their test results. Identifying these individuals—through widespread, voluntary, anonymous, free HIV testing—and then getting them into treatment, will help control the spread of HIV in their bodies... and control the spread of HIV in our country.

The formal launch of “Knowledge Is Power” took place on the UCLA campus on December 1, 2004. More than a thousand students participated in the event; several hundred students waited for up to four hours to be tested at one of the two mobile testing vans set up on Bruin Plaza; and hundreds more had to be turned away when the vans exhausted their supply of non-invasive, ultra-quick, highly accurate, completely confidential tests. All those who were tested got their results—and appropriate counseling—on site.
Power

PHOTOGRAPHY BY BOZA IVANOVIC  except as noted
More than a dozen student organizations — among them the AIDS Awareness Committee of the Student Welfare Committee, the Undergraduate Student Association Council, and Dance Marathon — helped rally hundreds of UCLA undergraduates to help join the AIDS Institute in inaugurating “Knowledge Is Power.”

The participants gathered at three collection points on campus, and at a prearranged signal began a slow march to Bruin Plaza that was timed so that the head of each column arrived exactly at noon. The marchers filed into the plaza, in silence, hundreds strong, as the bells of Powell Library tolled the hour.
Although the AIDS Institute provided the student-organizers of the World AIDS Day rally with posters, stickers, and T-shirts—all emblazoned with the distinctive red-and-black graphics of the “Knowledge Is Power” campaign—many of the participants carried hand-made placards that bore sobering statistics about the impact that AIDS has had worldwide in the past quarter-century.

The “Knowledge Is Power” rally drew its audience from all corners of the UCLA campus, thanks in large part to the efforts of Professor David Gere (above left, with three student organizers of the rally). As readers of the previous issue of Insider know, Gere sees artists of all stripes as under-appreciated, under-utilized and, potentially, immensely effective partners in AIDS education and prevention campaigns—and students from Gere’s “MAKE ART/STOP AIDS” class at UCLA were prime movers behind the Bruin Plaza rally.

*Overleaf*: Somber in the sunshine, students listen attentively to the speakers at the “Knowledge Is Power” rally in Bruin Plaza.
Adam Stern, the lead vocalist of the band Grizzly Peak (upper left), is also one of half a dozen UCLA students chosen to represent the AIDS Institute, on campus and at events in greater Los Angeles, as one of our AIDS Ambassadors—and on World AIDS Day he fulfilled that role in spades, providing not only intros but vamps, bridges, interludes, and several full-out songs. "I know that the AIDS epidemic seems a long way away, on a day as beautiful as this, in a place as beautiful as this," Stern said, "but AIDS is everywhere. It will be part of all our lives, all our lives." Among those Stern introduced was a fellow student, Hani Rosenfeld (far left), whose poignant report on her work with HIV-infected women in Africa ended with the haunting words of a woman Rosenfeld describes as "my Tanzanian sister, Amina."

"Mtoto yangu, anahumwa," Amina says — "My child has it too."

Dr. Kathie Ferbas (near left), who leads a vaccine development project at the AIDS Institute, noted that "no viral epidemic in history has ever been effectively contained without a vaccine." Until the advent of such a vaccine, our best hope of containing the epidemic is widespread testing, and effective treatment of those who carry the virus. Actress Jasmine Guy (above) sounded that note, on behalf of the AIDS Institute's testing campaign. In her closing remarks: "Getting tested for HIV is a responsible act, a moral act, a wise act, a life-affirming act. Know your HIV status. Knowledge is power."
The formal launch of “Knowledge Is Power” was but one element of a day-long, campus-wide, multidisciplinary program of World AIDS Day activities that began with a forum on the effective use of public media to promote AIDS awareness conducted by Firdaus Kharas (below, center), whose public-service announcements featuring three animated condoms known as the “Three Amigos” have been translated into 45 languages and will be seen, over the next several years, by a billion people. The day’s events included a series of performances on AIDS-related themes, beginning with an alternately diverting and deeply affecting monologue by dancer-choreographer David Rousséve, the chair of the World Arts and Cultures department at UCLA (opposite, in red T-shirt). Peter Carpenter, who studies under Rousséve, presented an excerpt from his wise and witty dance-theater piece “Bareback into the Sunset,” which gives human form to the shifting epidemiology of the epidemic (far left, above). And Columbia University professor Robert Sember (left above) discussed the impact that socially-engaged artists can have on the course of the worldwide epidemic.

The last element of UCLA’s World AIDS Day 2004 activities was a panel discussion, jointly sponsored by the AIDS Institute and the Williams Project on Sexual Orientation Law and Public Policy at the UCLA School of Law, on the legal impediments to dissemination of effective AIDS education and prevention messages. The first half of the discussion was led by Edwin Bayrd, the Executive Director of the AIDS Institute (at center in the panoramic photograph at bottom) and included Professor Gia Lee (below, left), whose area of legal expertise is constitutional law as it applies to free speech, and Sherri Lewis (below, right), an expert on HIV education who has been seropositive since 1988.

In observance of World AIDS Day 2004, the UCLA Library mounted exhibitions of AIDS posters from around the world at three campus libraries, and the UCLA Film and Television Archive screened an eclectic selection of AIDS-related clips from news and public affairs programs, TV dramatizations, and instructional media at more than 30 individual viewing stations in Powell Library’s Instructional Media Lab.
Faculty Profile

“The Way We Have to Live Today”

Dr. Gail Wyatt teaches women how to negotiate the terms under which they have sex, to protect themselves from being infected with HIV.

The science of exploring our collective sexual history is a relatively new frontier, a frontier that is uncharted, mysterious and, for most people, distinctly discomfiting. Talking about sex and sexual behavior obliges us to come to terms with everything that our society, our religious training, and our elders have taught us about our sexual selves. Most of the information we have about sex and sexuality comes from these sources, and according to Dr. Gail Wyatt, the UCLA AIDS Institute’s preeminent expert on sexual behavior, the information we glean from those sources is often contradictory and usually incomplete. As a result, we paper over those contradictions and fill in those gaps with our own interpretations of what it means to be a sexual being.

Dr. Wyatt has been researching the sexual behavior of women and men for more than 20 of her 30 years at UCLA. Her work as a sex researcher and sex educator has taken her around the world, and it has helped to expand the boundaries of her field. Never one to shy away from new frontiers, she was the first African-American woman to be licensed as a psychologist in the State of California, and she was also the first African-American woman to receive the K Award, a specialized award that is made at the doctoral level to an individual who is interested in receiving training in an understudied area. Moreover, she is the first African-American of either sex to receive the university system’s highest honor, a Research Scientist Award. When Dr. Wyatt received her K Award in 1980, she embarked on a lonely campaign to document the sexual behavior of African-American women.

Dr. Wyatt was already a year into her research when the first patients with AIDS arrived at UCLA in 1981. At the onset of the epidemic her mission was to debunk misperceptions about the group most affected by HIV in those early days, gay men. What she discovered was that these men were not the only ones at risk of contracting HIV disease. Her research revealed that women were also at risk, and she wrote about their vulnerability to HIV infection in many articles published during the 1980s and 1990s. At the time, most of the literature on AIDS portrayed the disease as limited to specific subpopulations: men who have sex with men, hemophiliacs, recipients of transfusions, IV drug users, and Haitian immigrants. As a result, the education messages that were being communicated at the time made little or no reference to the vulnerability of women who did not fall into one of the four latter categories. “If the risks to women had been articulated and disseminated years ago,” Dr. Wyatt declares, “I don’t think we would be in the position that we are in, only now ‘discovering’ that women are at risk, a quarter century after the first cases were diagnosed. We’ve really known this for some time.”

“I tell women—keep your eyes open, keep your keys handy, keep your purse by the door, keep your car at the curb, and keep the lights on. That way, the moment things get out of control, you can leave—and you’ve got a way of getting away. You can do more than just say no; you can take action.”

— Dr. Gail Wyatt  Associate Director, UCLA AIDS Institute

Dr. Wyatt also learned that misinformation about HIV disease was not the only obstacle to getting prevention information to women who are at high risk of infection. As she discovered, the women who most need this information are often the hardest of reach—because their upbringing, cultural attitudes, and socioeconomic circumstances make them less receptive to such messages, and distrustful of the messenger. In her own research Dr. Wyatt addresses this challenge by looking for cultural beliefs that are consistent with prevention messages. Particularly among inner-city women of color, cultural habituation often dictates that females play the role of the naïve, passive partner.
thrall to a dominant male. In this cultural construct women are not supposed to know very much about sex. And if they do, they aren’t supposed to talk about it.

As an AIDS educator, Dr. Wyatt gives women the opportunity to talk freely about sex, and about their own sexual experiences. She teaches them how to define their sexuality, acquire accurate information about sex and HIV, and take action to protect themselves. Her goal is to make sure that people find themselves in healthy, supportive relationships, and to attain that goal she teaches women that it is possible to negotiate the terms under which they have sex. Women have more leverage than they imagine they do, Dr. Wyatt assures her listeners. She encourages them to get tested, have conversations with their partners about sex, and develop safety strategies for when they do have sex. “I tell women — keep your eyes open, keep your keys handy, keep your purse by the door, keep your car at the curb and keep the lights on. That way, the moment things get out of control, you can leave — and you’ve got a way of getting away. You can do more than just say no; you can take action.”

When Dr. Wyatt spoke about sex at a recent symposium of African-American and Hispanic women, her customary frankness set off waves of giggles. “We are talking about areas of the body that are still taboo,” she said, “and we all know that way too many people who are sexually active are sexually active with their eyes closed.” Persistence and patience paid off when a woman stepped up to the microphone to acknowledge Dr. Wyatt’s common sense and good advice: “If I’d known what you’ve just told me, when the things that happened to me took place, they would not have happened. I didn’t realize that I had an option.” When Dr. Wyatt relates this anecdote, she observes that women like this one are almost painfully grateful for the opportunity to talk about sex: “It’s so liberating for them to be able to talk about their experiences.”

Gail Wyatt speaks to thousands of grateful women every year, and the question she is asked over and over is, What can a married woman say to her husband when she suspects that he is having sex with someone else? “I tell them to say to their husband that she and he need to get tested for STDs and HIV. That it is part of our health. You need to love yourself enough to know what it means to tell someone you love, ’I love you, and I’m in a relationship with you, but I’m not going to die for you.’ That shouldn’t change with marriage, or age, or trust, or children, or houses, or bills … or anything.

That’s just the way we have to live today. Many of these women say to me in a hushed tone, ’Oh, I can’t do that.’ And I say, ’Oh, yes, you can — I do’.”

A Lifetime of Achievement

Dr. Gail Wyatt, who received her Ph.D. from UCLA in 1974, has received numerous awards in the course of her distinguished 30-year career—among them a Lifetime Achievement Award from Jack and Jill of America; Woman of the Year, from the Los Angeles Commission on Women; and a Lifetime Achievement Award from the Los Angeles County Commission on Women and the Los Angeles Council. This sort of recognition must give Dr. Wyatt considerable satisfaction, especially considering that her lifetime—and her life’s work—are far from over. Of all the honors Dr. Wyatt has received, two particularly please her—and not simply because they are the most recent. The first of these is the UCLA Medical Alumni & Aesculapians Professional Achievement Award, which is given to individuals who have brought distinction to the David Geffen School of Medicine at UCLA through exemplary achievements in their fields and service to the community. This occasion was one of special pride for Dr. Wyatt, because her husband of 39 years, Dr. Louis Wyatt, was in the audience, as was her mother, Naomi Robinson—and because the award was presented by the Wyatts’ two children, Lance and Lacey, both graduates of the David Geffen School of Medicine at UCLA (above, with Dr. Wyatt and her granddaughter, Kamile).

More recently, she received the Jackie Robinson Lifetime Achievement Award from the UCLA Black Alumni Association. In typical fashion, Dr. Wyatt, in her acceptance speech, turned the spotlight away from her—and shone it on the African-American students at UCLA who were in the audience that night, all of them recipients of UBAA scholarships. “I want to tell these young people who are sitting in the middle of this room,” Dr. Wyatt said, “that you are in the middle of this room for a reason—because you are here in context, not only the context of UCLA and the UBAA but of the many cultures that are included here, the many personalities and life experiences that are around you and that will help you and encourage you . . . as they have helped and encouraged me through my life and my career.”
A CARE Center patient talks about her bleak past, her bright future, and her reasons for enrolling in one of the Center’s clinical trials

Betty Knox thinks she is an incredibly lucky woman. You might well wonder how she could reach such a conclusion, given that Betty lives alone in Compton, half the country away from her mother and her grown children—and given that Betty tested positive for HIV in January of 2001, shortly after she moved to Los Angeles.

But there’s much more to Betty Knox’s story than those bare facts, and the best place to get that story is where we did: from Betty herself, a warm, gregarious, self-sufficient, upbeat, and astonishingly candid patient at UCLA’s Center for Clinical AIDS Research and Education.

Betty grew up on the mean streets of South Chicago, in the years before President Lyndon Johnson’s War on Poverty had begun to have an impact on crime-ridden, drug-saturated life in one of the nation’s largest black ghettos. Betty’s father was an abusive drunk, and her mother did what she could to keep the family together. Betty was the good child, the one who excelled in school and stayed out of trouble—which freed her mother to focus her attention on Betty’s siblings, who got marginal grades and got into scrapes.

For Betty’s overtaxed, overextended mother, this amounted to a kind of domestic triage: she concentrated on the problem children, and left the one who seemed to present no problems to fend for herself. Betty puts it this way: “I never got the hug.” Years later, when Betty had developed her share of problems, she asked her mother about the embraces she never got, the praise she never received. Her mother could only say, “I assumed you knew how I felt.” At some level, Betty says, she did know. But even so, she wishes she had gotten a hug or two, back then. She thinks it might have made a difference.

Betty’s luck began to change when she moved to Los Angeles toward the end of 2000, to begin a new job. Initially, her luck bottomed out: she agreed to take an HIV test as part of the physical exam that all new employees were offered… and she tested positive. In retrospect, the results of that test were not a complete surprise to Betty, whose health had been marginal for several years. As she says, “I got infections all the time.” A number of these infections landed her in Cook County Hospital in Chicago, where she was treated for chlamydia infections and had a biopsy for possible liver disease.

Shortly after Betty moved to Los Angeles, her mother called to say that Cook County Hospital was trying to get hold of her. They wouldn’t say why, and Betty didn’t call them back. After January of 2001 she didn’t need to return those calls; she knew why the hospital in Chicago had been trying to reach her. “I had been fooling myself,” she now says, “but when they told me I was HIV-positive, well, I knew what time it was.”

It was time for her to get her life squared away—and she did. “At first, I thought what everyone thinks: I’m going to die. But then I got referred to the Minority AIDS Project, where I met people who had been living with HIV for 22 years. After that, I was fine.” For a while, Betty was fine without taking antiretroviral medications, but by the spring of 2003 her helper T-cell count had dropped to the point where her doctor, Ardis Moe, urged Betty to begin taking a combination of antiretroviral drugs to kill off much of the virus in her body and allow her immune system to reconstitute itself.

Dr. Moe saw Betty at a community clinic near the Magic Johnson Theaters in South-Central Los Angeles, but because Dr. Moe is a also member of the staff of the CARE Center, she was in a position to counsel Betty about the advantages of enrolling in one of the many clinical trials being conducted at the Center.

One trial, conducted by Dr. Ronald Mitsuyasu, the director of the CARE Center, had a particular appeal to Betty—for two reasons. The first was that it would allow her to stop taking her antiretroviral medications, at least for a time. The second reason was that there was a chance that the study might reveal physiological differences in how women respond to antiretroviral therapies compared to men. Betty recently turned 46, and like many HIV-positive women her age, she is facing the prospect of entering the menopause on a multidrug antiretroviral regimen. “What will that be like?” Betty wonders. She thinks her participation in Dr. Mitsuyasu’s trial may help provide some answers. “We’ve got to help the women,” she declares with the passion of a recent convert.
The question that the trial in which Betty is enrolled is seeking to answer is whether gene therapy can provide an alternate means of controlling HIV infection, and eliminate the need for daily multidrug therapy. The concept behind gene therapy is as simple as the technique itself is complex: a particular type of cell, known as a hematopoietic stem cell, is filtered out of the patient’s blood. Once a sufficient number of these cells have been collected, a new component is introduced into the cells, altering their genetic makeup—hence the term “gene therapy.” In this instance, the new component functions very like a pair of garden shears: every time the genetically-altered cell encounters HIV, it cuts the virus in two.

These genetically-altered cells are then reintroduced into the patient’s bloodstream. Wherever they go, they carry their new, HIV-killing capability with them, and when they multiply, they produce new cells with that same capacity.
The CARE Center study that Betty chose to enter is one of the first clinical trials to test the novel hypothesis that genetic modification of a patient’s own cells can suppress HIV infection. If the study succeeds completely, Betty will be able to stop taking her anti-HIV medications forever. She will remain infected, of course, but she will no longer have to remember to take pills several times every day, and she will be spared the toxic side effects of those drugs.

If the study is partially successful, Betty will need to go back on her HIV medications at some point, but it may be possible for her to go for long periods without taking those drugs. And—importantly—if the study fails, Betty will retain the option of resuming the three-drug regimen that had successfully eliminated most of the virus in her body.

Like most of the clinical studies being conducted at the CARE Center, this trial is randomized—which means that some of the participants get the treatment, and some do not. Randomization affords the researchers a bias-free way of gauging the effectiveness of the experimental HIV treatment. The Center’s gene-therapy trial is also double-blind—which means that neither the participants nor the doctors themselves know which patients are actually being treated.

Organizations like the Minority AIDS Project and Women Alive gave Betty Knox succor and hope in the weeks and months immediately following her HIV diagnosis... and now that Betty's physical and emotional health have been stabilized, and her natural buoyancy and optimism have been restored, she is returning the favor: She volunteers with both groups, and she now sits on the board of Women Alive (opposite), where she uses her own life story as a parable to teach newly-diagnosed women how to live productive, purposeful lives.
Some things change for people living with HIV; others are as constant as the sunrise. Betty now exercises on a regular basis—a reflection of her new resolve to take better overall care of herself. And, like so many other women in her South Los Angeles neighborhood, she rolls a cartful of dirty clothes down the street to the laundromat once a week, and feeds quarters into the machines. Betty says that both of activities, one newly adopted, one a matter of old habit, give her a sense that life goes on... and that she is going on with it.
In the first phase of Dr. Mitsuyasu’s study, Betty received five days of treatment with a drug called Neupogen®, which encouraged her bone marrow to produce lots of extra stem cells. At the end of that period Betty’s freshly made stem cells were collected over a two-day period.

Three days later the patient’s cells, with or without the genetic modification, are transfused back into the patient. Twenty-four weeks after this infusion of stem cells, antiretroviral therapy is stopped completely for four weeks. Patients are then placed back on their antiretroviral therapy for 12 more weeks, after which therapy is again stopped, this time for at least 8 weeks, to see what effect the gene therapy has had on controlling HIV.

Betty has now completed the study portion of the trial, and she continues to do well off therapy. Dr. Mitsuyasu and his colleagues will not know the results of her randomization, or the full results of the study, until the last patient has completed the trial—roughly 18 months from now. Like all of the participants in this study, Betty has been monitored closely throughout these treatment interruptions, and she has been compensated for travel to and from the CARE Center, and for the inconvenience of making weekly trips to UCLA’s Westwood campus. To hear Betty tell it, the long trip from Compton to Westwood isn’t that much of an inconvenience: “They’ve got that Rapid bus now, and when the Rapid is rolling, I just keep rolling with it.”
It’s too early to tell if Betty actually got the gene therapy, and of course it’s too early to tell if the therapy will work — and, if it does, how well it works. (We plan to update you, in a future issue of *Insider*, on the results of this study, and on how Betty is doing.) Betty is hopeful, but on therapy or off, she plans to be around for a long time. For the first time in several decades, she is making specific plans for her future, and to that end she has earned certificate in medical billing and coding from El Camino College. She may end up working in your doctor’s office. If you run into her there, give her a big hug from us. We think she deserves a million of them.
Dr. Ronald Mitsuyasu (far left), the director of the AIDS Institute’s Center for Clinical AIDS Research and Education, sees Betty on a regular basis, and takes a very personal interest in her progress. That progress is gauged, in part, by the results of bloodwork done on samples drawn at each office visit, and on Betty’s assessment of her progress, recorded in the forms she fills out whenever she is seen at the CARE Center.

Betty Knox is many things besides a patient at the CARE Center. She is a church-going Bible reader, and a mother and grandmother who exchanges phone calls, snapshots, and visits with her family, most of whom live in Chicago.
Message from the Director

Where the Money Comes from, and Where the Money Goes

How the AIDS Institute has allocated its research funds over the last five years

In the weeks following the Banda Aceh tsunami, public figures, private foundations, individuals, and governments around the world rallied to assist the victims of that natural disaster. Significantly, the salient qualities of the Indonesian tsunami—which arose without warning, struck distant countries before they could grid themselves against its impact, disproportionately claimed the lives of women and children, and destroyed the social infrastructure of the areas it ravaged—are also the salient qualities of the AIDS pandemic.

In the case of the tsunami, of course, the destructive agent was water, not an unseen virus, and the impact was felt in minutes, not decades. Terrible as the damage was, and devastating as it was to the families of the 170,000 victims, the tsunami was a one-time event. HIV claims 170,000 lives every ten days.

Over the past three months we have watched well-intentioned individuals and institutions contribute billions of dollars for tsunami relief, even as our own government has trimmed spending for AIDS services here and abroad. The juxtaposition is a telling one—a reminder of the daunting task we face in trying to raise money to combat the most heavily stigmatized disease of our time, an epoch that future historians will surely call the Age of AIDS.

This reality makes us all the more grateful for the support we do receive. That backing comes from enlightened foundations like those established by James Pendleton and the McCarthy family, from grassroots fundraising efforts like those organized by Charity Treks and by Terri Weinstein and her colleagues in Chicago, and from individual donors whose gifts range in size from less than $100 to more than $10,000.

This year the UCLA AIDS Institute will distribute more than $784,329 in grants to researchers affiliated with the Institute. These grants support specific projects, like vaccine research, and specific labs, like the Anton-McGowan lab, which is spearheading an international program to develop safe and effective microbicides—agents that will, we hope, substantially reduce the risk of HIV transmission during intercourse. As the list opposite indicates, the Institute also makes scores of grants to individual researchers, some of them members of the Institute’s faculty, some of them postdoctoral and graduate students, all of them engaged in projects that advance our understanding of how HIV is transmitted, treated, or prevented. These grants are made in the fields of basic science, genetics, virology, clinical research, behavioral science, training and education—and the Institute is justifiably proud of the fact that this year it has been able to fund every single grant application that received a passing grade from the peer-review panels that score these applications. (The box on the opposite page lists all of the recipients of AIDS Institute seed grants in the past two years.)

Each year UCLA receives a substantial sum from the National Institutes of Health to support ongoing research at the AIDS Institute—and a more modest allocation to cover what the NIH calls “development,” a term that covers everything from the recruitment of new faculty members to the testing of new approaches to prevention and treatment of HIV infection. For 2005, that allocation is $234,194—$550,135 less than the amount the Institute will be awarding in grants to its members. The difference between what the federal government gives the Institute for development and what the Institute gives out to faculty members is covered by gifts from foundations like those named above, by monies raised by dedicated all-volunteer organizations like Charity Treks and Terri Weinstein’s private army, and by people like you, who understand that we have a collective responsibility to bring an end to the silent tsunamis that are sweeping over every inhabited continent on earth, bringing infection and death to places no tidal bore could ever reach.

Irvin S.Y. Chen, Ph.D.
Director, UCLA AIDS Institute
Each year the Institute makes grants to support specific projects, to fund the work of particular labs, and to cover part or all of the salaries of newly recruited faculty members. In 2005 the AIDS Institute will also invest more than $600,000 in equipment for the future home of most of the Institute's basic-science laboratories, and will provide funds to help cover the cost of the CARE Center's move into new, off-campus quarters. Above all else, the Institute is a center for research on all aspects of HIV/AIDS. The diversity of those activities, which range from studying how the virus behaves in the gastrointestinal tract to assessing which socioeconomic factors keep people of color from participating in clinical trials, is reflected in this chart, which lists all of the recipients of Institute seed grants in the past two years.

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<th>Applicant</th>
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Being Positive, Living Positively

More than 300 men and women living with HIV attend a program designed to help them develop strategies to maximize their quality of life.

Focus on the Future is a community-update series that enables the UCLA AIDS Institute to share its expertise with members of the HIV community. The title of this program, “Focus on the Future,” reflects the fact that people living with HIV now have a future. The advances in antiretroviral therapy and clinical care made in the past decade have dramatically improved the prognosis for HIV-positive individuals. However, this very success has created an ever-expanding population of so-called long-term survivors—men and women who must cope with the challenges of chronic HIV infection, not to mention the side-effects of the potent but often toxic drugs that must be taken, day in and day out, to keep HIV at bay.

The target audience for this series includes people living with HIV disease, care providers, community-based AIDS service organizations, and advocates for patients. Since its inception last year, the series has covered a wide range of topics, bringing the community clear, concise, current information on such topics as treatment strategies for patients who have failed at least one drug regimen, investigational antiretroviral therapies, women and HIV disease, and gene therapy.

In mid-January more than 300 people attended a “Focus on the Future” forum entitled “Being Positive and Living Positively,” which addressed quality of life issues for people living with HIV disease. The evening’s speakers included dermatologist Dr. Derek Jones, who offered a comprehensive survey of the cosmetic options available to patients with several facial wasting. In addition, a panel of experts discussed various measures that seropositive individuals can take to optimize their quality of life. The panel included Dr. David Hardy, Director, Division of Infectious Diseases at Cedars-Sinai Medical Center; Dr. Judith Currier, Associate Director, UCLA Center for Clinical AIDS Research and Education; Janelle L’Hereaux, Nutrition Specialist, AIDS Project Los Angeles; and Sherri Lewis, an HIV-positive treatment activist and AIDS educator. Dr. Tony Mills, an HIV-positive local physician with a large HIV practice, chaired the event.

The UCLA AIDS Institute invited Dr. Mills to describe his own experience with HIV, beginning in 1987, the year he took what he described as “my first—and last—HIV test.” The editors of Insider were touched by Dr. Mills’ story, impressed by his candor, and completely won over by his ready wit and buoyant outlook. We think you will be too, when you finish reading Dr. Mills’ personal testament on pages 28–30.

Although people living with HIV are in the main healthier today than they have been at any time in the quarter-century since the first cases of what we now know as AIDS were described at UCLA, long-term survivors often look deathly ill. This health paradox is attributable to a poorly understood phenomenon known as lipoatrophy, a term that refers to the progressive loss of body fat seen in many HIV-positive patients. Facial lipoatrophy, also referred to as facial wasting, is not only unsightly but stigmatizing: in its most severe form, loss of subcutaneous fat is so pronounced that it is possible to see the musculature underneath the skin—effectively branding the affected individuals as AIDS patients.

Not unreasonably, people living with HIV dread this development, even though it is a purely cosmetic concern and not a mark of disease progression or imminent death. Because facial wasting first began to be seen in significant numbers of patients shortly after the advent of the protease inhibitors, many HIV experts suspected there was a link between this potent class of antiretroviral drugs and depletion of subcutaneous fat. It now appears that lipoatrophy may simply be a consequence of living longer with HIV infection—something that has been made possible, in no small measure, by the protease inhibitors themselves.
Lipoatrophy is a benign, but disfiguring, condition. Its malignant first-cousin, cachexia, also known as AIDS-related wasting, likewise results in weight loss—but unlike lipoatrophy, it can lead to debility and death. Dr. Eric Daar, a Professor of Medicine at the David Geffen School of Medicine at UCLA, elucidates the difference—and describes new treatments for AIDS wasting—in the sidebar commentary on page 31.

In his presentation, Dr. Derek Jones described the stages of facial lipoatrophy and discussed the various treatment options that are available to patients who suffer from moderate to severe loss of facial fat. These treatment options include permanent surgical implants, injected fillers that are eventually reabsorbed by the body, and injected fillers that are permanent, in much the way that silicone implants are.

Of all the procedures currently used to treat facial wasting, only one, a temporary filler called Sculptra, has been approval by the FDA to treat facial lipoatrophy in patients with HIV disease. Like the other options, Sculptra is not cheap—and because all procedures to reverse the effects of facial wasting are by definition cosmetic, they are not covered by insurance. For that reason Dermik, the company that manufactures Sculptra, recently launched a Patient Assistance Program that may help some patients gain access to this treatment. Information about the program can be found at www.sculptra.com or by calling 1-800-633-1610.

The UCLA AIDS Institute works in partnership with local AIDS service organizations to maximize our ability to reach our target audience. Our two-dozen community partners include Being Alive L.A., AIDS Healthcare Foundation, Cedars-Sinai Medical Center, Common Ground, Drew University, LA Shanti, AIDS Research Alliance, Pacific AIDS Education and Training Center, Children’s Hospital Los Angeles, Women Alive, APLA, Women’s Care Center and Women at Risk.

This spring the UCLA AIDS Institute will hold its next “Focus on the Future” session, “New Options and New Directions in HIV/AIDS Treatment,” an update on the clinical management of HIV disease, will take place on May 18th at the Hollywood Renaissance Hotel in West Hollywood. Dr. Judith Currier, the Co-Director of the Center for Clinical AIDS Research and Education at UCLA, will serve as the chair. Dinner, free parking, bus tokens, and simultaneous Spanish translation will be provided. Individuals interested in attending this symposium are encouraged to contact Jina Lee at 310-794-7209.
Personal Testament

Focusing on the Future

An HIV-positive HIV specialist assures an audience of men and women who are living with the virus that “We have got a lot of years ahead of us, and we need to live our lives to the fullest.”

I’m Dr. Tony Mills, and there are two reasons why the UCLA AIDS Institute asked me to chair this session of “Focus on the Future.” The first is that I have a large HIV practice here in the city—and I’m very pleased to see a number of my longtime patients here tonight. The second is that, like them, I am a gay man living with HIV—and that is what I would like to talk about tonight.

Just this week I had to give a very old friend an HIV diagnosis. These days my newly-diagnosed patients tend to fall into two groups. The first group is comprised of young kids who have never experienced the devastation of HIV firsthand, think they are invulnerable, and do not routinely practice safe sex. And then there’s a group of patients around my age, who somehow managed to go for years without contracting HIV but have either succumbed to what I call safe-sex fatigue or who think that treatments are no longer effective that it really doesn’t matter if they get infected. We know better—and we need to say so. As all of us who are living with HIV know, getting your diagnosis is a life-changing experience—it’s not just business as usual, but with meds.

When I give a patient an HIV diagnosis, the first thing I tell them is that the diagnosis gives me absolutely no information about how long they’re going to live. And the second thing I tell them is that the diagnosis gives me absolutely no information about what the quality of their life is going to be—because in this country people who are recently infected, and who get good care and take good care of themselves, have life expectancies that are recently infected, and who get good care and take good care of themselves, have life expectancies that are recently infected, and who get good care and take good care of themselves, have life expectancies that are recently infected, and who get good care and take good care of themselves, have life expectancies that are recently infected, and who get good care and take good care of themselves, have life expectancies that are recently infected, and who get good care and take good care of themselves, have life expectancies that are recently infected, and who get good care and take good care of themselves, have life expectancies that approach those of people who are HIV-negative. The only thing I do know with certainty about newly-diagnosed patients is that if they are conscientious about their health, they are going to see a doctor more frequently than they used to, they will need to get their blood tests tested with some regularity and, I hope, they will also take better overall care of themselves.

None of this was true in 1987, when I took my first— and last—HIV test. I was a medical resident at the time, working in San Francisco, and I was dating a horribly homophobic and HIV-phobic person... but I was hopelessly in love with him, so my idea was that I would get tested, establish that I was HIV-negative, and then move with him to, say, Akron, Ohio, and sit out the epidemic.

Fortunately, I had a wonderful physician in San Francisco—the compensation for having a not-so-wonderful boyfriend. When my doctor gave me my diagnosis, he said, “Look, we’re going to do some more tests and we’re going to find out what shape your immune system is in, and depending on what we find, there is this new drug called AZT...”

My first T-cell count was 300, and when my doctor gave me that lab result he told me that my immune system was far too compromised for AZT to be of any help to me. He also told me that it was time for me to make some hard choices. I needed to decide what I wanted to do about my career, for starters. Did I want to continue working in a medical residency where I was on call every third night and was pulling 24-hour shifts? Or did I want to go back to South Carolina, where I grew up, and move in with my parents?

I considered that latter option a fate worse than death, but in 1987 I didn’t have many other options. Here I was, just about to embark on my career—and suddenly there was a real question of whether I could even practice medicine. Faced with such limited and unpalatable choices, I chose to deal with my HIV diagnosis in the same way that I had dealt with all the significant issues in my life—through avoidance and denial. I chose to continue my medical training because that was what I was already doing, and because I had always wanted to be a doctor.

I also chose to keep my HIV status a secret from all but my closest friends. I was living in San Francisco, and my next move was to New York. In those two cities at that time, gay life was about watching your friends melt away from HIV. I didn’t want to burden friends and relatives with the information that I had tested positive because back then there was nothing anyone could do except wait, and worry. I chose to keep it to myself. I thought that eventually I would get sick, and when I did, the virus would begin making decisions for me.

And, miraculously, my plan worked—for almost eight years. I never had a sick day, not so much as a cold. And then, in September of 1995, I woke up in the middle of the night, wrapped in sweat-soaked sheets, gasping for breath. And I thought, oh yeah, I have HIV—I forgot. What I had, of course, was pneumocystis pneumonia, which was one of the primary killers of HIV patients in the years before multidrug antiretroviral therapy. At this point I was down to 45 T-cells. My doctor put me on disability, put me on Bactrim for the pneumonia, and put me on two antiretroviral drugs, Videx and Epivir. He described this regimen as the most potent therapeutic option then available.
Six weeks later I was feeling much better, so we checked my T-cell count again: still 45. And my viral load on the two meds was a sky-high 300,000. So much for the most potent antiretroviral regimen then available. My doctor and I had another heart-to-heart talk. He told me it was time for me to make specific plans about the end of my life. And you know, that well-intentioned advice didn’t sit right with me. I thought, I may be going to die, but I’m not going to go without a fight. I knew there wasn’t much I could do to combat the virus directly, beyond continuing to take my medications, but one thing I definitely could do is take better care of myself—and so I did that. I stopped using party drugs and alcohol, and I started working out regularly. I even engaged a personal trainer, to teach me how to work out. And I got better.

Even so, I felt exhausted a great deal of the time, I had no appetite, and my testosterone level was in the sub-basement. So I pushed my physician to put me on supplemental testosterone, which was then a novel therapy… and that helped too. And then one day, as I was leaving my doctor’s office, his nurse said to me, “I don’t know if you’re interested in this, but we have some investigational drugs in the refrigerator that belonged to a dead guy, and if you want to take those, we’re happy to give them to you.” My first thought was, Why bother? It’s not like the drugs did him any good. And my second thought was, What do I have to lose?

Which is how I got started taking my first protease inhibitor, Norvir. I took what was then the recommended dose, 600 mg twice a day, and I’ll tell you I learned what diarrhea is all about. But within two months my viral load had dropped below the level of detection of the assays that were then being used… and I began the long climb back to Real Life. My doctor gave me 18 months to live, based on my response to the new drug, but I got just stronger and fitter with each passing month.

By 1998, I was still on disability but feeling a hell of a lot better. I weighed about 220 — up from 165 at the time of my pneumocystis diagnosis. I was working out every day; I was doing some advocacy work for people living with HIV; I was active in the leather community; and life was really pretty good. Apparently I was looking pretty good too, because I got invited to compete for a title called International Mr. Leather. I wasn’t sure if this was something I wanted to do, so I asked a mentor of mine in the community what he thought. He posed two questions: first, is there a message that you think that the community really needs to hear; and second, is it a message you think you can carry?

In 1998, the answer to the first question was easy: the community needs hope. And I thought well, maybe, maybe I can carry this message. So I competed — and I won. I spent the next year on the road, all over the country and overseas as well. And what I remember isn’t the cities, it is standing up on a stage in front of a group of strangers and saying, hi, I have HIV and I’m doing okay. That is a message that we were starting to hear in Los Angeles and San Francisco and New York in 1998, but they weren’t hearing it yet in places like Kansas City — until they heard it from me.

What I learned in that year is that I love one-on-one conversations. There I was, in a different bar every night, not smoking, not drinking, not doing drugs — which gave me lots of time to have engrossing conversations with people… and that’s what I did. And the more I did it, the more I found myself missing the conversations I used to have with patients. It made me really miss being a doctor. And I wondered, is it possible for me to go back to work? I didn’t have a lot of hope, back then, because there was this widespread belief — which is still with us, I regret to say — that HIV-positive physicians shouldn’t be practicing medicine. But fortunately for me, one physician here in Los Angeles told me that he would give me a try in his practice.

“I tell my patients that I am planning to be around for another thirty years… and I’m planning that they will be too.”
I came out here in 1999 for that tryout... and I never went back home. To be perfectly honest with you, I had a lot of concerns about going back to work — about whether I’d have the energy necessary to get through long, taxing days. What help me was cardio-training. Up to that point, the only cardio exercise I got was when I moved from one machine to another at the gym. I looked really fit, but I wasn’t. So I began a regular program of cardio-training, and it helped me get my endurance up. I started out working just a few hours a day, and gradually added more hours... and it wasn’t very long before I was working eight-hour days.

And then I came across this great little house — that was back when you could still afford a house here in Los Angeles. I had never actually thought about owning real estate — because, well, I had only had short-term prospects. The house was a commitment — to the bank, and to my second life. Shortly after I signed the mortgage papers I found myself talking to an old friend in San Francisco — a friend who is also a long-term survivor — about the tax advantages of owning real estate, and he said, You’re not still paying taxes, are you? You’ll be long dead by the time they catch up with you. And at the time I thought, he kinda has a point.

Well, I’m very happy that I bought the house... and I’ve very happy that I paid my taxes. My friend in San Francisco is on a long-term payment plan with the IRS... and I’ve just signed a new, ten-year lease on my office space — which commits me to treating patients for at least another decade. I tell my patients that I want them to take good care of themselves because I’m planning to be around for another thirty years... and I’m planning that they will be around for another thirty years too. I don’t think that’s unrealistic. My conviction is backed by the data that we are seeing these days about the long-term durability of the regimens we have right now — and that’s not even taking into consideration the amazing drugs that are in the drug-development pipeline.

Indeed, HIV treatment has changed so much since I was diagnosed that HIV infection itself is no longer my chief worry, where my patients are concerned. These days, when I visit with my patients, I talk for just a few minutes about HIV and spend the rest of the time talking to them about heart disease, prostate cancer, colon cancer — things that those of us who were diagnosed a decade or more ago didn’t think we were going to have to worry about.

So I’d like you to listen to what tonight’s speakers have to say about living with HIV, and I want you to talk to the people around you, to reinforce your own feelings of being positive about being positive. Because we have got a lot of years ahead of us, and we need to live our lives to the fullest.

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**Commentary**

**When Weight Loss Is More Than Skin Deep**

Even in the age of potent, effective combination therapy, AIDS-related wasting remains a threat to the health of people living with HIV.

Lipoatrophy, the loss of subcutaneous fat that is seen in many long-term survivors of HIV infection, is a cosmetic problem — and as Dr. Derek Jones amply illustrated the presentation he made at the UCLA AIDS Institute’s most recent “Focus on the Future” event, it is a cosmetic problem for which there are now a number of cosmetic solutions. AIDS-related wasting, on the other hand, is an extremely serious, and potentially fatal, clinical complication of advanced HIV disease. Although wasting is not the problem it was a decade ago — when it was seen in up to half of all AIDS patients — it remains a threat today, as Dr. Eric Daar, the chief of the Division of HIV Medicine at Harbor-UCLA Medical Center, makes clear in the following commentary:

Since the AIDS epidemic began a quarter of a century ago, cachexia, also known as AIDS-related wasting syndrome, has been a common, debilitating, and all too often deadly condition among people living with advanced HIV disease. During the 1980s, an estimated 30%-50% of patients with AIDS experienced wasting syndrome, a metabolic disorder characterized by the loss of lean body mass — that is, muscle and viscera. The Centers for Disease Control define AIDS wasting as a loss of 10% or more of an individual’s total body weight, often accompanied by diarrhea, weakness and/or fever lasting for more than 30 days. Although the exact mechanism of wasting in AIDS patients has not been clearly defined, it generally involves low caloric intake, poor absorption, and altered metabolism.

Despite major advances in the management of HIV/AIDS in the last decade, including the use of potent multidrug therapy to suppress viral replication and dramatically improve immune function, wasting syndrome remains a significant health threat to people living with HIV. In fact, in some studies HIV-associated wasting affects up to one third of infected men and women.

Because studies have demonstrated that the loss of lean body mass cannot routinely be reversed when patients are put on potent antiretroviral therapy, even when those patients gain weight, physicians and others in the healthcare community need to watch for signs...
of wasting, and treat the condition aggressively when it occurs. Managing HIV wasting ultimately requires that clinicians learn to recognize wasting in their patients, define the underlying causes of this problem, and approach the management of wasting in a systematic fashion.

Management of HIV-associated weight loss requires careful evaluation of the patient for potential untreated infections, undiagnosed malignancies, factors that might be limiting caloric intake, and evidence that patients are losing lean body mass even when consumption of calories is adequate. When weight loss persists despite these efforts, treatment strategies must focus on further increasing caloric intake with nutritional supplements and/or appetite stimulants coupled with progressive resistance exercise and the administration of anabolic hormones.

These steps are essential, because nutritional supplements alone have not been shown to increase lean body mass. Moreover, while approved appetite stimulants such as megesterol acetate and dronabinol have a clear role in treating patients with simple anorexia, and have been shown to enhance appetite in some individuals, neither has resulted in consistent increases in lean body mass.

In contrast, modest increases in lean body mass have been seen in patients who consume adequate calories and also receive testosterone replacement therapy. In the early 1990s, anabolic steroids such as nandrolone and oxandrolone began to be used to treat wasting. While available data suggest that these treatments do increase lean body mass, concerns about liver toxicity have limited the usefulness of these agents.

In 1996, the FDA approved the first and only anabolic agent for the treatment of HIV-associated wasting syndrome. This agent, recombinant human growth hormone (rhGH), was given provisional approval based upon the results of a double-blind, placebo-controlled study that was conducted shortly before the advent of the protease inhibitors. Subjects receiving rhGH experienced an increase in body weight, a decrease in body fat, and improved physical performance. The most common side effect of rhGH was musculoskeletal discomfort, with pain, swelling or stiffness. A more recent confirmatory study led to full FDA approval for this product for HIV-associated wasting syndrome.

Although AIDS-related wasting syndrome is less of a problem now than it was before potent antiretroviral therapy became widely available, wasting still occurs—and when it does, it is associated with adverse outcomes. A landmark study by Wanke and colleagues found that more than half of the patients they studied lost weight and lean body mass over the course of the study despite receiving potent multidrug therapy. Moreover, recent data show that weight loss is associated with a reduced likelihood of survival regardless of T-cell count.

Identifying wasting syndrome has become more complicated in the last six or seven years, now that we are seeing more lipodystrophy in our patients. This poorly understood phenomenon, which involves the redistribution of body fat, can mimic wasting through lipoatrophy—or mask it, as a result of abnormal fat accumulation.

AIDS wasting takes a devastating toll on patients’ health and well-being—as well as on the nation’s healthcare resources if it is not effectively treated. The unfortunate reality is that wasting is often overlooked, particularly in patients who appear to gain weight on potent antiretroviral therapy. Consequently, clinicians need to be vigilant about monitoring their patients’ weight—and measuring lean body mass to ensure that increases in weight are occurring in these crucial tissues. It is equally important to ensure that patients have access to all the available treatments necessary to improve their care. With heightened awareness of the problem, careful and comprehensive diagnosis, and access to appropriate treatment for patients with HIV-associated wasting syndrome, this particular manifestation of HIV disease can be significantly reduced.
News from the UCLA AIDS Institute

UCLA AIDS Institute Documentary Garners Ten National Awards

Honors include top award given by video industry in the fields of health and medicine

The UCLA AIDS Institute Story — a short documentary created to introduce the UCLA AIDS Institute, its key investigators, and the scope of its international activities to prospective colleagues, collaborators, and sponsors — has received 10 national awards in the last six months. The 24-minute film, which was produced by documentary-film veterans Liz Mitchell and Patrick Dunavan in partnership with Edwin Bayrd, Executive Director of the UCLA AIDS Institute, examines the impact the Institute is having on the global AIDS crisis and on the lives of people affected by the disease.

The most prestigious honor conferred on “The UCLA AIDS Institute Story” is the 2004 Freddie Award in the category of Advertising and Public Relations. The Freddie Awards are considered significant because the competition is open to broadcast news segments and documentaries that are aired on primetime television, as well as non-broadcast film and video. Among the other winners of 2004 Freddie Awards were ABC News, the American Red Cross, CNN, Discovery Channel, HBO, and the World Health Organization.

In addition to the Freddie Award, the AIDS Institute’s documentary has won three Aurora Awards — including the top award, Best of Show; three Telly Awards, in the categories of Fundraising, Health/Medicine, and Music; and three Videographer Awards: two Awards of Excellence, in the categories of Medical Fundraising and Directing, and an Award of Distinction for Use of Music. Overall, “The UCLA AIDS Institute Story” has to date collected an impressive 10 awards at international competitions held by the video industry.

According to director Patrick Dunavan, the success of the project can be attributed to the fact that from the outset all those involved in the project shared a collective vision of what the documentary was meant to achieve. “The UCLA AIDS Institute came to us with a very clear idea of what the emotional character of the piece would be, particularly the human content of it and the relationship between the staff and the patients — and we set out to capture that vision.” Dunavan adds that it can be a challenge to present complex scientific concepts with clarity — and without losing the human content. “To do that takes craft, considerable time, and great care,” he says. “And everyone at the UCLA AIDS Institute, the staff and the patients, gave us total support in maintaining that focus.”

One individual whose contribution was fundamental to the documentary’s success is Senegalese musician and AIDS activist Baaba Maal, whose hauntingly beautiful music weaves a lyrical narrative through the piece. Maal is a pillar of the African music world who uses his art as a vehicle to deliver messages of empowerment, enlightenment, and peace. He represents the United Nations Development Program as a UNDP Youth Emissary and he has been a featured performer on fundraising projects for the HIV/AIDS awareness group The Red Hot Organization. Dunavan says, “It was so generous of Baaba to grant us access to his songs. His music — in particular the song “I Will Follow You” — is intrinsic to telling the story, and it binds the piece together. Three of the awards we received were for use of his music.”

The end result is an enormously effective documentary that brings the viewer closer to the sense of urgency that researchers, physicians, and patients experience as they battle HIV disease. It also explores the personal accounts of people living with HIV, the physicians who treat them, and the unique measures that the UCLA AIDS Institute researchers are taking to combat the spread of the virus and help people with HIV disease live longer and healthier lives.

Dunavan concludes, “When you look at how each person’s participation complimented that of others, and the degree of commitment on everyone’s part, it isn’t surprising that the documentary came together the way it did and has been so well received. Liz and I have been producing documentaries for over 30 years, and this one has been the most gratifying. We’re very proud of it.”

For more information about how you can receive a copy of “The UCLA AIDS Institute Story,” please contact the Institute at 310-794-7209.
Turning the Tables on HIV

Using only the harmless husk of the virus, the Institute’s director enlists its exceptional cell-penetrating properties to deliver tumor-killing therapies to metastasizing cancer cells.

Although the research being done at the UCLA AIDS Institute will remain resolutely focused on human retrovirus infections until the HIV pandemic is finally contained, the scientific breakthroughs achieved in our laboratories have implications—and applications—that are much broader. Indeed, work done by Institute researchers to characterize, neutralize, and eradicate HIV have helped to propel advances in the understanding and treatment of diseases such as hepatitis B and C, influenza, and cancer.

A dramatic recent example of how research on HIV can lead to potential treatments for cancer has just been demonstrated by Drs. Irvin S.Y. Chen, the director of the AIDS Institute, and Koki Morizono. They are the first to show that an altered form of HIV—rendered harmless by the removal of roughly four-fifths of its genetic content—can be reprogrammed to hunt down cancer cells. If their work is confirmed by subsequent studies, this novel vector could be used to transport cancer-killing agents directly to tumors—an approach to therapy that would potentially eliminate many of the onerous side-effects that are associated with standard chemotherapy, because only tumor cells would be affected.

Previous attempts to turn the tables on HIV and other members of the retrovirus family—by employing their extraordinary cell-penetrating capacity to cure rather than kill—have failed because researchers have tried to modify the outer envelope of those viruses. This modification renders the viruses harmless, but it also causes the envelope to become so deformed that it is no longer able to infect cells, according to Dr. Chen. To avert this inevitability Dr. Chen and his colleagues cloaked genetically-altered HIV with another virus, a modified form of sindbis, which typically infects insects and birds but poses no threat to humans. Masked by sindbis, genetically-modified HIV proved sufficiently stable to serve as a cell-piercing carrier mechanism.

Drs. Chen and Morizono programmed their altered virus to attack and disable a protein, found on the surface of cancer cells, that ordinarily rebuffs anti-cancer agents. Although the specific target of this study was melanoma cells in the lungs of living mice, scientists could potentially use this carrier mechanism to target any protein on the surface of any cell. Indeed, the UCLA researchers have already found that their vector can pass the blood-brain barrier and enter the brain itself.

To demonstrate the efficacy of this homing device, Drs. Chen and Morizono tagged their carrier mechanism with luciferase, the protein that makes fireflies glow in the dark. Then they used a special camera, known as a “cooled charge-coupled device,” to look for the glowing protein inside live mice. The stunning results of their experiments, which were recently published in *Nature Medicine*, are shown below.

Promising as this development is, it represents proof of concept, not a cure for solid-tumor cancers—not yet, anyway. "One of the problems with gene therapy," Dr. Chen cautions, “is that the results of work like ours are so dramatic—in animal models—that it is hard to resist the impulse to try these new therapies out in patients. What experience has taught us is that premature trials in human beings can have tragic results, so we are not planning to move into clinical trials of our vector until the technique is fully refined.”

In untreated mice with melanoma in their lungs (top panel, left image), the cancerous cells light up under a special imagining technique. When these same mice are injected with an untargeted vector, none of the vector finds its way to the cancer (top panel, right image). In healthy mice who receive the new treatment that Drs. Chen and Morizono have developed—an HIV-based vector that targets only melanoma cells—no response occurs, because there is no cancer for the vector to home in on (middle panel). But when mice with melanoma are given the vector, the overlap of cancer and vector is almost perfect (lower panel).
"Knowledge Is Power" is a national campaign, launched by the UCLA AIDS Institute on World AIDS Day 2004, to destigmatize HIV testing and encourage all sexually-active individuals to get tested. The Centers for Disease Control estimate that 300,000 Americans are HIV-positive and don’t know it. Identifying these individuals and getting them into treatment will help control the spread of the virus in their bodies…and control the spread of the virus in our country.

"I Know," the phrase inscribed on the Institute’s wristbands, means any or all of the following:

• “I Know” my HIV status
• “I Know” how HIV is transmitted
• “I Know” how to avoid being “infected with HIV
• “I Know” how to avoid infecting “others with HIV