

Fulbright Scholar to Focus on AIDS in Africa

Adeyeye Examines Drug Quality, Availability

By Kim Saunders

Much has been written and debated about the AIDS pandemic in Africa, a continent that has about 70 percent of the world's estimated 45 million HIV/AIDS cases. But for Dr. Moji Christianah Adeyeye, professor at the Mylan School of Pharmacy, actions speak louder than words.

In January, Adeyeye will journey to Nigeria on a Fulbright Scholar award to conduct research on the quality of anti-retroviral (ARV) drugs used to treat the disease in Africa. Her commitment has also made it possible for her to launch a faith-based humanitarian program to provide education, counseling, testing and treatment for Nigerian people living with HIV/AIDS.

A Duquesne faculty member since 1989, Adeyeye obtained her first degree at the University of Nigeria and returns to the country frequently. Shocked and saddened by the devastation to her homeland from AIDS, she developed a scientific and personal interest in combating the disease eight years ago and became more proactive about it in 2003.

A densely populated country of about 126 million people, Nigeria comprises about 25 percent of the entire population of the African continent in a territory only slightly larger than the state of Texas. According to published reports, the incidence of AIDS/HIV in Nigeria has been rising steadily, from 1.8 percent in 1991 to 5.8 percent in 2002. These statistics translate to more than seven million people, making Nigeria the country with the most cases of AIDS/HIV in Africa and one of the worst affected countries in the world.

"It is heartbreaking. Some towns in East Africa are virtually wiped out; in others, there are only women and children left; and there are many, many orphans. I do not want this to happen in Nigeria," Adeyeye said.

As a scientist, she knew the potential for ARV therapy—a cocktail of different drugs in different dosages that work synergistically—to transform HIV/AIDS from a normally fatal illness into a chronic condition. But she was shattered by what she discovered was sub-standard treatment for AIDS patients in Nigeria.

"I visited the hospital in which I worked 25 years ago and found that

AIDS patients were being treated with herbs—there was not a single pharmaceutical available," she said. "I learned that only about one percent of Nigerian patients have access to AVR drugs."

She discovered ARV drugs that are available are imported and the quality sometimes suspect. That's when the idea for a research study was born.

A scholar and devout Christian, Adeyeye designed a proposal that would serve both her academic and social service interests. She applied for, and received, a Fulbright grant to study the quality and bio-equivalency of two common AVR drugs—lamivudine and zidovudine—which are available in Nigeria for HIV/AIDS treatment. In collaboration with the University of Lagos and the National Institute for Pharmaceutical Research in Nigeria, she will develop dosage forms and analyze the potency

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and bioavailability of these drugs, as well as their generic forms. Adeyeye and her colleagues plan to conduct clinical trials with healthy volunteers.

"Because the virus develops resistance to the drugs so quickly, I became concerned about the quality of drugs. I started doing chemical equivalency tests at Duquesne last fall and will do the bioequivalency studies in Nigeria. The treatment of AIDS and the quality of life for AIDS patients are only as good as the ARV drugs used for treatment assuming patients have access to the drugs," she said.

The second part of Adeyeye's mission addresses a social issue. Last year, she established a nonprofit, faith-based organization known as Drugs for AIDS and HIV Patients (DAHP). With offices in the United States and Nigeria, DAHP includes scientists, medical specialists and religious leaders devoted to

developing assessments and therapeutic interventions for people living with HIV/AIDS. In Nigeria, DAHP works in collaboration with numerous hospitals that are part of the Baptist AIDS Awareness and Prevention Program as well as a group of four Catholic hospitals in Nigeria that comprise a consortium serving 80 million people in 10

states and four geographical zones of Nigeria.

"Our vision is to make HIV/AIDS drugs and testing accessible to Nigerian peoples and reduce mortality," she said. Specific goals include the following:

- Procure ARV drugs, other medicines and personal testing kits through philanthropic donation or local manufacture of the drugs in Nigeria
- Monitor the supply chain, distribution, storage and quality of ARV drugs
- Monitor blood cell counts and viral load of patients
- Provide free multivitamin supplements, affordable testing kits, ARV drugs and other drugs used for opportunistic infections
- Provide counseling on management of HIV and AIDS
- Train health care workers in workplace safety, and proper use and



Dr. Moji Christianah Adeyeye

handling of ARV drugs

- Train patients in home health and palliative care

The task, Adeyeye admits, is monumental. How will she accomplish it? "Faith," she said simply. "I told a missionary friend of mine I was scared and he said 'Good, then you will have to rely on God for help.'"

"My goal is to help the children by helping their parents," she continued. "If a child loses a parent, the probability of that child growing up successful—or even staying alive—is very slim. But if we can sustain her mother or father on drugs for five years, 10 years, 15 years, like we do in the U.S., the probability for that child to live and have a better quality of life is higher. That is my passion, my hope, my prayer."

DAHP Benefit Dinner

On Saturday, Oct. 16 at 4 p.m., Adeyeye will host a dinner in the Duquesne Room for the benefit of her mission, Drugs for AIDS and HIV Patients. Adeyeye is seeking financial contributions and in-kind donations or pledges of medical equipment and drugs to support her missionary efforts in Nigeria. There is no charge for the dinner, but reservations are required.

For more information or to reserve a seat, please contact Adeyeye at 412-396-5133 or at adeyeyechri@duq.edu