HIV/AIDS has disproportionately affected women and children in Brooklyn, and HIV Center researchers at SUNY Downstate were among the first to focus on HIV transmission from mother to child. In the 1980’s, Drs. Sheldon Landesman (PI), Howard Minkoff, Hermann Mendez, and Joan Hittelman carried out one of the first perinatal HIV studies in the US, the Maternal and Infant Transmission Study (MITS). Funded by NICHD and NCI, MITS lasted 7 years and combined such disciplines as infectious disease, OB/GYN, pediatrics, and neurodevelopmental psychology to dramatically improve our understanding of perinatal HIV transmission and the natural history of HIV disease in children.

The MITS was implemented at University Hospital of Brooklyn and Kings County Hospital Center during a period of rapidly rising rates of HIV infection among women of reproductive age in Brooklyn, Harlem, and the South Bronx. While viral load testing was not yet available, HIV antibody tests were, and thus, women with HIV who were at risk of transmitting it to their infants could be identified prenatally. Data from the MITS suggested that a significant proportion of perinatal HIV infections were transmitted during delivery. Dr. Hittelman conducted neurodevelopmental studies of children to examine the effects of HIV on brain development, and Dr. Mendez documented the significant morbidities in children with perinatally acquired HIV.

A related study done by the same investigators suggested that testing only those women recognized as being at risk through physician-elicited, patient-volunteered testing programs failed to identify substantial numbers of infected women. Other NICHD-funded studies (e.g., blinded sero-surveys of newborns) confirmed the critical importance of informing infected HIV+ women of their serologic status, and that in clinical practice, identification of women with STDs such as HIV could most effectively be accomplished with routine testing (with consent, confidentiality, and counseling). This has now become the standard of care.

Findings from the MITS helped to set the scientific agenda for the Women and Infants Transmission Study (WITS) (Landesman, Site PI), the multi-center study co-funded by the NIH that succeeded MITS. Initiated in 1989, the WITS sought to determine risk factors for perinatal HIV transmission and to study the factors related to disease progression among HIV+ pregnant women and their infants. The WITS collected obstetrical, clinical, immunologic, and virologic data on over 500 HIV+ women during pregnancy and followed them along with their infants. One of the most significant findings (published in The New England Journal of Medicine) was that among mothers with membranes that ruptured more than four hours before delivery, the rate of transmission of HIV to the infants was 25%, as compared with 14% among mothers with membranes that ruptured four hours or less before delivery. Since the shortest duration of ruptured membranes can only be accomplished with a planned C-section, this finding identified another means of decreasing perinatal transmission – by about 40-50%. Eventually, C-section became standard of care for those women in whom the HIV viral load could not be lowered to less than 1000 (at which point C-section has little effect on transmission).

The WITS also helped to define the timing of perinatal HIV transmission, confirming that most transmission occurs at or near delivery. This crucial fact has permitted more accurate, cost-effective targeting of anti-retroviral therapy of the mother in an attempt to prevent perinatal transmission. Numerous studies in Africa have and continue to be done in an attempt to develop simplified

(Continued, page 2)
short drug regimens given close to delivery to prevent perinatal transmission.

Pediatric clinical trials at Downstate began in the late 1980s and have accrued an impressive record of performance and completion of trials. In late 1994, results of the landmark NIH funded ACTG 076 study, conducted by a nationwide network of clinical trials sites (including SUNY Downstate), showed that a regimen of the drug AZT, given to HIV+ women during pregnancy and childbirth and then to their infants, could reduce the rate of perinatal HIV transmission by as much as 66%. Following the dissemination of these study results in 1994, the US Public Health Service published guidelines for the use of AZT to prevent perinatal HIV transmission and for HIV counseling and voluntary testing for pregnant women. This trend has been accelerated by more recent advances, including viral load monitoring, new drug development, and multiple studies demonstrating the superiority of combination therapy. Thus, discoveries made through MITS and WITS helped to markedly decrease perinatal transmission of HIV. These studies served as a foundation for a number of additional studies and service grants, involving women with HIV (Women’s Interagency HIV Study); treatment of pediatric HIV; HIV in Central and Eastern Europe (Fogarty International Center); Family, Adolescent and Children’s Experience at SUNY (FACES) (formerly Brooklyn Pediatric AIDS Network); and Longitudinal Epidemiologic Study To Gain Insight into HIV/AIDS in Children and Youth (LEGACY).

The successor to WITS, the Pediatric HIV/AIDS Cohort Study (PHACS) (Landesman, PI; Mendez, Co-PI), a $2.2 million, four-year renewable study has just been funded by NICHD. PHACS aims in part to acquire more definitive information regarding the long-term safety of antiretroviral agents when used during pregnancy and in newborns to prevent transmission. The study was motivated by the preliminary finding (not yet confirmed) that a very small percentage of children who receive AZT as part of a regimen to prevent perinatal acquisition of disease, may develop mitochondrial disease. The postulated mechanism is the irreversible intercalation of the AZT molecule into host mitochondria. A cohort of exposed uninfected children (who did not receive AZT, though their mothers did) will be followed using a careful protocol to see if effects occur.

**FACULTY and STAFF updates**

Scyatta Wallace, PhD was granted a Loan Repayment Award by the National Institute on Drug Abuse, Pediatric Clinical Research Program. She was an invited participant on the NIH working group, Mapping the Environment: Measuring the Social Environment in Drug Abuse Research. In addition, Dr. Wallace was recently asked to serve a one year term on the American Psychological Association Presidential Task Force on IRB and Psychological Science.

**Daralyne Davis** recently joined the STAR Program as a part time Research Assistant working with Dr. Scyatta Wallace. Ms. Davis is currently a junior at St. John’s University, where she is majoring in Psychology.

**Mayange Frederick, BS**, a recent graduate of Medgar Evers College/CUNY has recently joined the STAR Program as a Patient Care Technician in the prevention and research project funded by Substance Abuse and Mental Health Services Administration (SAMHSA). Previously she interned with the STAR Program’s Teens Helping Each Other (THEO) Project, a community education and outreach initiative of the Adolescent Education Program.

**Matthew Hogben, PhD**, former post-doctoral fellow of the Association of Teachers of Preventive Medicine at SUNY Downstate (DeHovitz, PI), has accepted the position of Branch Chief of the Behavioral Interventions and Research Branch (BIRB) in the Division of STD Prevention, Centers for Disease Control and Prevention. Dr. Hogben received his PhD in Social Psychology at SUNY Albany in 1996 and completed his post-doctoral fellowship at Downstate in 1999. Following this fellowship, he joined the CDC as a Behavioral Scientist in BIRB.

**Katherine Marx, NP**, has been appointed to the NYC HIV Prevention Planning Group (NYC PPG), whose primary goal is to eliminate HIV infections and disease in NYC. To this end, the NYC PPG, a joint effort of community and governmental representatives, develops a comprehensive HIV prevention plan which integrates multiple HIV community needs and prioritizes HIV prevention interventions and strategies for prioritized populations at high risk of HIV infection.

**Angelette Provenzali, MSW**, has returned to the STAR Program as a Patient Care Technician working with the prevention and research project funded by Substance Abuse and Mental Health Services Administration (SAMHSA). She previously worked with the STAR Program’s domestic violence, risk behavior prevention, and partner notification projects. Mrs. Provenzali obtained her Master’s degree in social work at Yeshiva University.

**Niko Verdecias**, Project Coordinator & National Community Advisory Board Liaison, Women’s Interagency HIV Study (WIHS), earned her Master of Public Health from SUNY Downstate.
HIV/AIDS Activities in the Republic of Georgia

In November 2006, Dr. Jack DeHovitz visited the Republic of Georgia where he helped organize three conferences on HIV and tuberculosis. On November 30, 2006, The First Lady, Sandra Roelofs presented Dr. DeHovitz and three colleagues with an award (and two bottles of Georgian wine!) for their efforts in developing modern HIV services in Georgia. The presentation occurred at the Tbilisi Opera House before an audience of approximately 2000 persons attending a production of Romeo and Juliet. On December 1, 2006, a meeting and press conference were held at the Ministry of Labor, Health and Social Affairs, highlighting World AIDS Day. It was opened by Ms. Roelofs who also serves as Chairperson of the Country Coordination Mechanism for the Global Fund to Fight AIDS, Tuberculosis and Malaria. Dr. DeHovitz was asked to give some of the welcoming remarks, along with the Head of the Health and Social Affairs Committee of the Parliament, the Deputy Minister, and the UNICEF representative in Georgia.

Armenian, Georgian Doctors Visit SUNY Downstate

From January 10-12, 2007, SUNY Downstate was host to a group of Armenian and Georgian physicians as part of the New York State International Research and Training Program (NYS-ITRP). This three-day seminar included personalized presentations focused on HIV policy, prevention, and management by Downstate faculty and staff, as well as observation periods at the STAR Health Center and the Sexually Transmitted Infection (STI) Clinic at Kings County Hospital Center. The seminar’s four participants, Dr. Nino Lomia (Georgia), Dr. Marina Topuridze (Georgia), Dr. Edgar Manukyan (Armenia), and Dr. Tina Karapetyan (Armenia) were also invited to present information about the situation regarding HIV and other STIs in their respective countries at the weekly Downstate HIV/ID Seminar. The presentations were moderated by Dr. Jack DeHovitz, the NYS-ITRP Program Director at Downstate.

Visits to the STAR Health Center provided a unique opportunity to observe clinical practices related to HIV care – a valuable addition to prescribed coursework at the SUNY-Albany School of Public Health, where the trainees are working towards either MS in Epidemiology or MPH degrees. The knowledge gained during their training in the US will be applied towards the development of more effective HIV treatment and prevention strategies in their home countries, where many barriers to effective HIV testing and care still exist.

HEAT Program Director Attends HIV Conference in Malawi

From November 13-17, 2006, Dr. Jeffrey Birnbaum, Program Director, FACES Network and HEAT Program, attended an HIV conference in Blantyre, Malawi. The conference, entitled, “Strengthening the Health Sector Contribution to Care, Support, Treatment and Prevention for Young People Living with HIV,” was sponsored by the World Health Organization (WHO) and UNICEF as part of the Unite for Children, Unite Against AIDS campaign. The conference focused on ways of strengthening the health care sector in order to meet the needs of HIV positive adolescents, both in Africa and globally. Dr. Birnbaum discussed how the HEAT Program delivers services to HIV positive adolescents in an effort to help create a best practices model that can be replicated in the US and abroad.

HIV CENTER FACULTY PUBLICATIONS


All of the programs listed below are part of SUNY Downstate’s HIV Center for Women and Children. For more information about the services each program provides, please call the numbers listed or the HIV Center for Women and Children at:

(718) 270-2301 or 4736 OR visit our website at: www.hivcenter.org

1. INFECTIOUS DISEASE SPECIALIST - The STAR Health Center at SUNY Downstate is seeking a full-time ID specialist to join our hospital-based ambulatory HIV program, to provide out-patient and inpatient care, teach, and conduct clinical research. Board certified/board eligible in ID with strong interest in clinical medicine and education preferred. Opportunity to work in a dynamic clinical and research environment. Faculty appointment is provided with rank commensurate with experience. Competitive salary and comprehensive benefit package. C.V. and cover letter to: Dr. Jack A. DeHovitz, Director, STAR Program, SUNY Downstate, 450 Clarkson Avenue, Box 1240, Brooklyn, NY 11203 Email: jack.dehovitz@downstate.edu

2. COMMUNITY LIAISON WORKER (CLW) for HIV Testing - CLW sought for delivery of HIV counseling and rapid HIV testing services in community-based settings, including mobile unit, to conduct outreach, pre- and post test HIV counseling & testing, follow-up, quality improvement activities, data collection and record keeping. Minimum of HS diploma or GED; 2 years of college preferred. Work experience requirements are dependent upon education. HIV counseling and or phlebotomy training preferred; computer literacy required. 32.5 hours per week; flexibility required, including some evenings and weekends. Salary: $30,000 - $34,000 DOE; full benefits.

3. PEER EDUCATOR - Half-time Peer Educator sought to work with CBQ’s, businesses and churches to promote community-based rapid HIV testing, and provide individual and group education in the mobile unit and at community-based sites; escort HIV+ clients to medical appointments; conduct home visits; and maintain educational materials. Minimum 1 year experience working with people in a counseling or educational capacity, computer literacy and personal experience with HIV disease; may be HIV+ or HIV affected. 18.75 hours per week. Flexibility required, including some evenings and weekends. Salary: $15,000 - $18,000 DOE; full benefits.

4. DRIVER FOR MOBILE HEALTH UNIT - Half-time Driver sought for transport of staff and supplies in the mobile medical unit to various community-based sites where rapid HIV testing and community education are performed. Responsibilities include ensuring ongoing mobile unit maintenance; assisting program staff as needed to ensure safety of staff and clients; and contacting police or ambulance in the event of any emergency. NYS commercial Class B driver’s license appropriate for operating the mobile unit, excellent driving record, and demonstrated experience with tools and equipment. Moderate to heavy lifting may be required. One year previous experience driving comparable vehicle preferred. 18.75 hours per week. Flexibility required, including some evenings and weekends. Salary: $15,000 - $18,000 DOE; full benefits.

Send resume and cover letter for Positions 2 through 4 above to: Carolyn Ferdinando, SUNY Downstate,STAR Program, 450 Clarkson Avenue, Box 1240, Brooklyn, NY 11203. Email: Carolyn.ferdinando@downstate.edu

5. URS COORDINATOR sought to manage data for multiple SUNY Downstate service grants, including supervising data entry into the Uniform Reporting System (URS); ensuring adherence to data checking and feedback system; generating reports for funding agencies and staff; maintaining URS system integrity through programmatic upgrades and working with technical staff to troubleshoot technical problems; and providing assistance to new projects as needed, including forms development, data entry, tracking, cleaning, reporting, database design, supervision and training. High school diploma or GED & 2 years previous experience in managing data processing for large-scale research or service projects. Demonstrated experience with PCs and related software including but not limited to Microsoft Office Suite, Word/Perfect Office Suite, Windows 9x, SPSS Windows. Bachelor’s degree & experience with URS preferred. 37.5 hours per week. M-F 9am-5pm. Salary: $45,000 - $60,000 DOE; full benefits. 
Resume and cover letter to: Ira Ehrlich, SUNY Downstate, 450 Clarkson Avenue, Box 1240, Brooklyn, NY 11203 Email: ira.ehrlich@downstate.edu

For the HIV/ID Seminar Series and the latest employment opportunities visit our website at: www.hivcenter.org

The HIV Center is now distributing the HIV Link electronically. If you are interested in remaining on our mailing list, please send your email address, along with your name and mailing address, to hivcenter@downstate.edu

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Grants & Awards
The Special Treatment and Research (STAR) Program (DeHovitz, PI) was awarded $4,443,580 over five years by HRSA/Ryan White Title III. This funding supports the STAR Health Center and related services.