Stevenhardt Researchers Advance Our Understanding of Brain Injury Treatment

Aiming to advance scientific knowledge of brain injuries and their most effective treatments, researchers at the Steinhardt School are engaged in a variety of studies that will ultimately benefit patients suffering from debilitating disorders such as stroke, Parkinson’s disease, and traumatic brain injury.

Assistant Professor Sharon Antonucci and Professor Diana Van Lancker Sidtis, both in the Department of Communicative Sciences and Disorders, are studying how the brain influences memory and language. In the Department of Occupational Therapy, Assistant Professor Gerald Voelbel is studying how traumatic brain injury changes brain functioning.

Some of the research takes place at the NYU Center for Brain Imaging, a shared facility dedicated to research and teaching in cognitive neuroscience which offers sophisticated brain imaging technologies such as functional magnetic resonance imaging (fMRI) and positron emission tomography.

Antonucci researches how word retrieval is affected among adults following stroke by examining their brain images. She has the patients perform word retrieval tests and compares the test results with the test results of their peers. At Steinhardt, musicians and therapists are working across disciplines to study the voice and hand, policy analysts are looking for a link between obesity and school performance, and artists are using therapeutic strategies to help impoverished people in South Africa.

All those who work in the health field do so tirelessly on our behalf. In these pages you will find stories that highlight the advocacy, scholarship, and global reach of the good work that we do.

In Simple Interventions and Complex Studies, Guttmacher and Halkitis Fight AIDS

Since the first case of HIV was diagnosed in 1981, 26 million people have died of AIDS worldwide and the epidemic shows no signs of weakening. There remains no vaccine or cure, and progress against the disease is uneven. The United Nations AIDS fighting agency, UNAIDS, estimates that for every 100 people put on treatment, 250 are newly infected.

Given the grim statistics, what can be done to curtail the spread of the disease?

On two different continents, Steinhardt faculty members are undertaking HIV prevention research and advocacy in an effort to help change the lives of South African youth and gay men in America.
IN A NEW BOOK, RESEARCHERS DISCOVER DEPRESSION ROOTED IN RELATIONSHIPS AND CULTURE

Silencing the Self Across Cultures (Oxford University Press, 2010) is a cross-cultural study of depression. Alisha Ali, an associate professor in Steinhardt’s Department of Applied Psychology, co-edited the volume with Dana C. Jack, a professor at Western Washington University, who created the Silencing the Self Scale as a way to gain insight into the psychosocial factors behind women’s depression.

“Some of the most intriguing themes that we see in this book concern the idea of depression not as an individual mental illness, but rather as a consequence of human rights violations,” Ali says. “Around the globe, there are social conditions and forms of violence that serve to silence women’s voices and to compromise women’s sense of self.”

Jack notes that women’s self-silencing has correlated with depression, even in countries that are vastly different from each other.

“We think that this is because — as the World Health Organization has stated — ‘No country treats its women as well as it treats its men,’” Jack says.

STUDY BY PAREKH SHOWS THAT PROSTATE CANCER IN OBESE MEN IS LIKELY TO GO UNDETECTED

Men who are obese are less likely to be referred for a prostate biopsy, finds a recent study by Niyati Parekh, an assistant professor in Steinhardt’s Department of Nutrition, Food Studies, and Public Health. With faculty from the University of Medicine and Dentistry of New Jersey, Parekh found evidence to demonstrate that obese men also had lower biopsy rates compared to lean men.

Parekh’s study, published in the American Journal of Medicine and featured in Reuters Health September 2010, noted that lower Prostate-Specific Antigen (PSA) scores among obese men make it more likely that prostate cancer can go undetected.

“The result of not being detected early for prostate cancer means that these men are detected with late stage prostate cancer that may have already spread to the bones and other sites,” Parekh said.

Parekh is a nutritional epidemiologist who researches the relationship between diet and chronic disease.

THE NYU STEINHARDT MISSION

NYU Steinhardt advances knowledge, creativity, and innovation at the crossroads of human learning, culture, development, and well-being. Through research and education, both within and across disciplines, the school’s faculty and students evaluate and redefine processes, practices, and policies in their respective fields and, from a global as well as community perspective, lead in an ever-changing world.

Beth Weitzman, Diana Silver, and Wagner Team Honored for Urban Health Initiative Evaluation

A national evaluation of the Urban Health Initiative (UHI) undertaken by Steinhardt Associate Dean Beth Weitzman and a team of NYU researchers has been honored with the American Evaluation Association’s (AEA) 2010 Outstanding Evaluation Award. Funded by the Robert Wood Johnson Foundation, the UHI was a 10-year multi-city initiative aimed at improving health and safety of children and youth in Baltimore, Detroit, Oakland, Philadelphia, and Richmond (Virginia).

“Among the many factors leading to this recognition was the impact of this report on the evaluation and design of large-scale community health programs,” said Tarek Azzam, chair of AEA’s Awards Committee.

The Urban Health Initiative prompted changes in public policy, led to new partnerships with various local agencies, and fostered collaboration between health care facilities and schools, social service agencies, and other youth-serving institutions.

“We came to view Dr. Weitzman’s team not just as evaluators of the site and intervention, but as our partner in determining what was working and what was not,” said Andrew Freeman, board president of the Family League of Baltimore City.

“Just as we struggle to try to find the appropriate policies and programs to improve the health and safety of children in America’s most distressed cities, so, too, must we struggle with the question of how best to figure out which of these policies and programs are proving most beneficial,” Weitzman said.

Members of the UHI evaluation team (left to right): Charles Brecher (Wagner), Beth Weitzman (Steinhardt), Tod Mijanovich (Wagner), Diana Silver (Steinhardt).
With Ambition and Walking Shoes, Students Catalogue Organic and Local Food Availability Throughout Manhattan

Carolyn Dimitri, visiting associate professor of food studies and an applied economist, is interested in the question of whether access to local and organic food influences consumer demand. To find out the answer, she and her graduate students have embarked on a yearlong study to assess the availability of local and organic food at groceries, delis, outdoor food carts, and other establishments that sell fresh food in Manhattan.

Using a simple data collection sheet, students from the Department of Nutrition, Food Studies, and Public Health’s food systems classes will canvass every Manhattan neighborhood and will note whether stores sell organic or local food from a variety of categories, including dairy, produce, and meat. Dimitri will analyze the data to create an index for each store, ranging from 0 to 100, that captures the availability of organic or local food.

“This is a vast undertaking, given the large number of stores in Manhattan,” Dimitri says. “Fortunately, my students have responded with great enthusiasm, and have offered useful suggestions about the best way to divide Manhattan in sections to facilitate the data collection process. Last month, Krystal Ford and I collected data on store types in Inwood. We identified about 50 stores in our assigned area. I was rather surprised to see the odd mix of products carried in the majority of the stores.”

The class research will also shed light on whether demand for organic food is greater in higher income neighborhoods or in neighborhoods with a greater concentration of stores that sell such foods.

“Research suggests that consumption of organic food tends to be a function of how well educated a consumer is, as opposed to his or her income level,” Dimitri says. “The problem with estimating a consumer’s demand for such organic and local foods has been the difficulty of measuring access.”

The data collected will provide a more accurate measure of access to organic and local food, and that should allow Dimitri to improve existing models of consumer demand for these products.

Traumatic Brain Injury Is Focus of Faculty Research

location of the brain lesion. Antonucci maps which areas of the brain are essential for naming functions, which may lead to a treatment for word retrieval.

Van Lancker Sidtis is engaged in a five-year study funded by the National Institutes of Health (NIH) that examines the effects of Deep Brain Stimulation (a brain “pacemaker”) on the vocal quality of Parkinson’s patients. Her results suggest that “while some patients exhibit slight deterioration in motor output, there is generally an improvement in vocal quality among patients who undergo DBS.”

Voelbel is currently working on a NIH-funded project to detect changes to the brains of individuals with mild traumatic brain injury (TBI). Each year, more than one million Americans suffer some form of mild TBI, such as concussions from athletic injuries or car accidents. While the majority of people return to normal brain functioning within six months, about 20 percent of patients exhibit more serious cognitive problems. Voelbel hopes his research will enable clinicians to better predict which patients will develop serious cognitive problems, enabling them to design more appropriate treatments for this population.

Art Therapy in Cape Town, South Africa

Each summer, students in Steinhardt’s graduate art therapy program travel to Cape Town, South Africa for a global internship. Working side-by-side with local residents, students contribute to community-based projects in orphanages, prisons, hospitals, and mental health facilities.

“None of us expected the intensity of our experience,” says Agnieszka Czech-Dymek, who felt that she left small pieces of her soul in a country that “juxtaposes extreme poverty with outstanding richness.”

“Presented with a novel chance to practice art therapy, I leapt at the opportunity to participate,” said Emily Day, who conducted group art therapy sessions in a school for adolescents with learning impairments.

“The students were economically disadvantaged, stigmatized, discriminated against, and many had suffered from multiple traumas,” says Day. “The focus of the art therapy was to give them the space, attention, acceptance, and materials to tell their stories and to be seen and heard doing so.”

Ikuko Acosta, clinical assistant professor of the Department of Art and Art Professions, directs the graduate art therapy program in South Africa.

Steinhardt art therapy student Caitlin Scafati took this photo, “Art of Healing Project,” at an orphanage in Langa, a suburb of Cape Town, South Africa.
Musicians in Steinhardt Look to their Colleagues in Rehabilitative Sciences To Understand the Biomechanics of the Body

Cellist Duo-Lin Peng, an award-winning musician, stopped playing the cello because he had wrist pain. A doctoral candidate in the Department of Music and Performing Arts Professions, he became interested in the career of cellist Luigi Silva (1903-1961), who explored left-hand technique for cello playing because it had been suggested that his hands were too small to play his instrument.

Collaborating with Jane Bear-Lehman, chair of the Department of Occupational Therapy, helped Peng gain insight into the biomechanical use of both hands for cello playing. The student learned how his own body moved in relation to his requirements as a musician. An occupational therapist with a specialty in hand therapy, Bear-Lehman “helped me widen my vision toward cello playing,” Peng said. He learned to play the cello with greater understanding and without pain.

At Steinhardt, vocalists are also taking advantage of the rehabilitative sciences to explore how best to protect a singer’s life-long instrument, the voice.

Brian Gill, music assistant professor of vocal performance, and Celia Stewart, chair of the Department of Communicative Sciences and Disorders, share patients and lecture in each other’s classes, providing invaluable information to students about vocal anatomy and physiology.

A recent lesson with Kristen Ruiz, a student in Steinhardt’s advanced certificate in vocal pedagogy program, included a detailed discussion of voice function with regard to breathing, phonation, and resonance.

“Is a person ever too old to correct an articulation problem?”

‘R’ sounds are difficult to treat and the duration of treatment is often related to the age of the client. A younger child may make more rapid progress than an older child because the habit may be less solidly formed. The correction of ‘r’ may be compared to the effort it takes to change any well-ingrained habit in favor of another. In the case of ‘r’, the new behavior involves a set of new, challenging, motor movements. Intervention success also depends on the cause of the problem. If there are physiological concomitants such as hearing loss, structural, or neurological impairment, the prognosis is more guarded.) Most articulation problems can be helped regardless of a person’s age, but the longer the problem is maintained the longer it may take to change.  

Cross-department collaborations can help musicians play better. Left, Brian Gill and Kristen Ruiz discuss “The Jewel Song” from the opera, Faust. Right: Cellist Duo-Lin Peng and Jane Bear-Lehman

Questions for a Speech Language Pathologist:

On the Difficulty of Articulating ‘R’ Sounds

Harriet Klein is a professor and director of the doctoral program in Steinhardt’s Department of Communicative Sciences and Disorders. She teaches articulation disorders, language disorders in children, and principles of intervention.

You study the consonant ‘r,’ which you have called, “one of the most challenging phonemes for the developing child.” For a speech language pathologist, what makes ‘r’ so special (and so troublesome)?

The consonantal ‘r’ sound which starts a syllable is closely related to the vowel type ‘r’ represented by the letters ‘er’, ‘ir’, ‘ur’. When we refer to the learning of ‘r’, we refer to both types of sounds. Both types are challenging to learn because production involves complex movements of the tongue, more complex than most other sounds. This challenging motor behavior may be one of the primary reasons for the ‘r’ being a later developing sound and present as an error sound in the speech of children with articulation problems.

Harriet Klein

Is a person ever too old to correct an articulation problem?

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Inverse is true as well: a more efficient singing voice can lead to clearer speech.

Stewart notes that the students in communicative sciences and disorders have benefited from the collaboration as it has given them “a greater appreciation for the impact of voice disorders,” and “an opportunity to further develop their knowledge and expertise in a clinical setting.”
In Simple Interventions and Complex Studies, Guttmacher and Halkitis Fight AIDS

continued from page 1

SMALL INTERVENTIONS MAKE A HUGE DIFFERENCE IN SOUTH AFRICA

For the past 15 years, Professor Sally Guttmacher has been working to enact changes in health care delivery in South Africa. Guttmacher directs Steinhardt’s master’s program in community public health as well as Community Health: A Society in Transition in South Africa, an all-NYU study abroad program she created. Her experience of the country’s staggering AIDS epidemic led her to think about how she might help reduce the spread of AIDS in a country with one of the highest incidence rates in the world.

When Guttmacher evaluated New York City’s plan for expanded HIV/AIDS education and condom availability program in 1997, she learned that teenagers engage in sexual behavior whether or not condoms were readily available to prevent HIV transmission. Her experience in South Africa has borne a similar insight.

“Our whole emphasis on teaching kids doesn’t seem to be the panacea we thought it could be,” Guttmacher says. “We thought that once people understood how HIV is spread they would desist in the kind of behaviors that spread HIV.”

A culture of poverty and fixed ideas about intimacy add to the direness of South Africa’s public health crisis. Guttmacher notes that young girls often will trade sex for items like lipstick, clothing, or dinner, and young boys believe that sex has to be “skin to skin.” This has led Guttmacher and her colleague South African professor Catherine Matthews to look for a way to enact small changes in policy to help teens who do seek out HIV prevention information and counseling in South Africa’s clinics.

Funded by the Medical Research Council in South Africa, a recent study looked at whether voluntary testing and counseling clinics in the Cape Town metropolitan area were adolescent friendly. Surveys administered by Guttmacher and her students, presented to South Africa’s Department of Health, revealed that nurses and receptionists were punitive to teens seeking services, and that they needed training to work with adolescents.

This might not seem like big news, but it is the kind of intervention that might change the future for infected teens who need to begin treatment.

“It’s an intervention that is so cheap, so easy to do!” Guttmacher says. “Everyone is thinking about these very complicated changes you need to make in order to get youth to come in to a clinic and get tested, and we discovered that maybe it’s as simple as spending one day teaching the receptionist to smile and not say to the kids, ‘Make your own chart!’ There are small interventions that can have a huge impact.”

IN THE UNITED STATES

HIV PREVENTION WITHIN A LARGER FRAMEWORK

Working with gay men in the United States, Perry Halkitis, Steinhardt associate dean and professor of applied psychology and public health, has also found that prevention strategies aimed at altering behavior have had limited effectiveness in the HIV epidemic. Like Guttmacher in South Africa, Halkitis is aware that HIV prevention is an intractable problem. (In the United States, gay men constitute more than 50 percent of those infected with HIV.)

In thinking about HIV and gay men, Halkitis looks at the whole person, the totality of factors and behaviors that may lead to risk.

“Too long we have relied on simplistic policies of ‘use a condom every time,’” Halkitis says. “Our approaches for the last 30 years have envisioned HIV prevention strategies to alter behavior without taking into account that social contexts mold these behaviors and fuel the risk of HIV infection.”

Halkitis is the director of Steinhardt’s Center for Health, Identity, and Behavior & Prevention Studies (CHIBPS), where research is undertaken to explore the broad range of challenges that gay men face. CHIBPS projects look at the continuum of men’s development in an effort to understand their needs at all phases of the lifecycle. Since 1998, Halkitis has been involved in more than 20 research studies, which have received funding from a range of government and private sources. With a $2.9-million National Institutes of Health grant, Halkitis and his team are working with the NYU School of Medicine to study the developmental pathways of young gay men in an attempt to pinpoint specific risk factors for HIV infection. The study, called Project 18 (named for the age of the research subjects), will follow 675 gay men for three years in order to understand their developmental trajectories and vulnerabilities to the epidemic. Data will look at sexual behavior, drug use, relationships, mental health status, as well as academic engagement and community service.

Halkitis hopes that the study will show the specific psychological burdens that young gay men face, and that this information will help service providers to create team approaches to HIV prevention that incorporate prevention, sexual health advocacy, addiction, and mental health services, into their counseling treatment.

“Our work consistently shows that for gay men, HIV exists within a larger framework,” Halkitis says. “HIV is not just a medical condition driven solely by sex, but a biological, psychological, and social disease driven by the health disparities and lack of equality and access that gay men face.”

INSIDE BOOKS

Perry Halkitis on Methamphetamine Addiction

“The drug, methamphetamine, interests me because its use transcends race, ethnicity, sexual orientation, economic status, and level of education,” says Perry Halkitis. Halkitis’ Methamphetamine Addiction: Biological Foundations, Psychological Factors, and Social Consequences (American Psychological Association, 2009), is one of the most comprehensive books in print about methamphetamine addiction.

“There is no simple, linear path to methamphetamine addiction,” Halkitis says. “Trajectories to addiction vary from person to person.” He notes that biological, psychological, and social vulnerabilities are powerful calls, and that those who are depressed, live in poor economic situations, and transact in social circles where the drug is used are clearly at greater risk.

“In my view a treatment that encompasses the totality of a person’s biological, psychological, and social life is the most beneficial. Such an approach meets the person where he or she is, examines the realities of his or her life, and tries to understand why the addiction has developed and looks for strategies to counter it.”
NEW YORK UNIVERSITY

The Department of Physical Therapy has launched a clinical residency in orthopedic physical therapy. The 12-month full-time program provides both classroom and clinical learning experiences taught by seasoned clinicians and faculty members that will enable licensed physical therapists to gain advanced orthopedic knowledge and clinical skills.

“The physical therapy profession has evolved over the last 30 years from providing generalized care under physicians’ supervision to offering specialized intervention and prevention/wellness programs directly to the general public,” says Wen Ling, chair of the department.

Graduates of the program will be trained to provide short-term care to patients at a relatively low cost, Ling says.

PHYSICAL THERAPY DEPARTMENT OFFERS CLINICAL RESIDENCY PROGRAM

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Lancaster Brings High Blood Pressure Intervention to Black Churches

Kristie Lancaster, associate professor in nutrition, has embarked on a project called Faith-based Approaches in the Treatment of Hypertension (FAITH), a five-year trial funded by a $737,000 grant from the National Institutes of Health. FAITH brings blood-pressure reduction strategies into black communities through its churches. Lancaster is the co-principal investigator on this project with Gbenga Ogedegbe from NYU Langone Medical Center. Lancaster’s project targets 400 men and women of African descent with hypertension. A treatment group will receive a blood pressure intervention consisting of 12 group classes and one-on-one motivational sessions run by church members. A control group, meanwhile, will receive group health classes focusing on other health topics, as well as literature on reducing blood pressure through healthy eating. Lancaster believes that after six months, members in the treatment group will exhibit a drop in their blood pressure and will be eating more fruits and vegetables than those in her control group. Her research seeks to expand the existing literature on the effectiveness of using community-based settings to promote healthy lifestyle changes.

In Puebla, Mexico, Studying New York City’s Future Immigrants In Situ

More than half of New York City’s Mexican immigrants hail from Puebla. “Migrants travel with their belief systems and their attitudes towards health services and these, in turn, shape their expectations and encounters towards services in the United States,” says Yumary Ruiz, a clinical assistant professor in Steinhardt’s Department of Nutrition, Food Studies, and Public Health. To better assess the health needs of these immigrants, Ruiz teaches Global Issues in Public Health: Puebla, Mexico, a course that allows students to examine the impact of transnational migration issues.

Ruiz’s course begins in Brooklyn, where students explore a Mexican neighborhood, and continues to Puebla, where students interact with residents and visit public health services. Through research on health issues, Ruiz’s students — many of them health professionals — are making a contribution to better delivery services to New York City’s immigrant population.

Institute to Look for Link Between Food Policy, Obesity, and Students’ Academic Performance

“Understanding how schools shape the health and fitness of their students is a critical step in making positive changes in our education system,” says Amy Ellen Schwartz, a professor of public policy and director of Steinhardt’s Institute for Education and Social Policy. Schwartz and her team are looking at the connection between food policy, childhood obesity, and academic performance in New York City’s public schools. One study will examine how a 2003 New York City policy change, which made breakfast free for all students, has impacted school attendance and test scores. Another study will combine large-scale quantitative analyses, interviews with school food service personnel, and in-depth case studies of schools to assess how the relationship between food policies — including meal access and access to snack machine and ‘out’ lunches — affect children’s weight, absenteeism rates, and test scores. “Our goal is to provide guidance to school decision makers,” says Schwartz. “We hope current policies and practices will show us what works, for whom, and under what circumstances.”

Comparing Notes: Students Use Virtual Learning Site for Cross-Cultural TB Study

Through Blackboard, NYU’s virtual learning site, Steinhardt students studying Health and Society at Washington Square and in Ghana can share information on health issues. Last semester, both sets of students examined data about tuberculosis. “The students at NYU-Ghana looked at the issue of TB in Ghana, the push by the government to get people tested and into treatment, the funding mechanisms for this push, and the set of attitudes, values and expectations that Ghanaians had about TB treatment and its epidemiology,” said assistant professor Diana Silver, who teaches the course in Steinhardt’s Department of Nutrition, Food Studies, and Public Health.

Back home in New York, students studied current health policy and learned how different cities and states responded to TB outbreaks in the 1990s. Students at both campuses compared their findings to deepen their understanding of the ways in which cultural, economic, and political factors can shape responses to disease.
**Nourishing NYC:**

**Gina Keatley, Steinhhardt Alumna, Uses Lessons Learned To Feed New York City’s In-Need Community**

Gina Keatley (BS ’08), a graduate of Steinhardt's Department of Nutrition, Food Studies, and Public Health, is the founder of Nourishing NYC, a not-for-profit food center located in East Harlem.

Her career merges an education at NYU Steinhardt and a restaurant management degree with lessons she learned early in life as a recipient of meals from soup kitchens and pantries.

Keatley’s Nourishing NYC offers a variety of programs that run on a seasonal basis. “In the spring and fall, I work with a team of volunteers planting and or harvesting one of our community gardens for our Urban Produce Program,” Keatley says. (Nourishing NYC distributes more than 5,000 lbs of fresh produce on an annual basis.)

In November, Keatley collaborates with shelters, senior centers, and schools to bring turkeys to families. And in the winter Nourishing NYC’s volunteers can be found on the street distributing healthy hot soups and gloves, hats, and scarves to the homeless.

A recent $25,000 Post Grant for Good Health funds Nourishing New York’s junior chef program, a culinary arts and nutritional education program for children.

“Funding is by far our largest obstacle,” says the food studies program graduate, whose good work draws on an education that exposed her to “every kind of food and culinary experience you could imagine.”

Learn more about the not-for-profit organization, Nourishing NYC by visiting its website http://eatwellnyc.org.