

Provost's Annual Research Day

April 29, 2003

Panel 1, 2:30-3:30 p.m.

Moderator: Glenn Shafer, Rutgers Business School

Presenters

Sherri-Ann Butterfield, Faculty of Arts and Sciences, Sociology/Anthropology

M.A., Ph.D., sociology, University of Michigan

“Diasporic Notions of ‘Blackness’: The Case of Second Generation West Indians in New York City, London and Toronto”

A native New Yorker, Dr. Butterfield recently had a chapter titled “Why Do I Have to Choose?: The Racial and Ethnic Identities of Second-Generation West Indians” published in *Becoming New Yorkers: The Second Generation of a Global City*. She studies the roles that education, residential segregation and socioeconomic status play in the construction of racial and ethnic identities among second-generation immigrants living in urban areas of northern New Jersey and in New York City. One of her current research projects examines race and ethnicity as they relate to the lives of the diasporic West Indian community living in North America and Europe. She is also investigating the racial and ethnic interactions between West Indians and African-Americans in New Jersey.

Wilma Friedman, Faculty of Arts and Sciences, Biology

Ph.D., neuroscience, Rockefeller University

“Nerve Growth Factor in the Brain: A Double-Edged Sword”

“Neurotropic factors” are proteins that influence the survival and function of neurons in the central and peripheral nervous systems. Certain neurotropic factors may cause neurons to die rather than survive. Dr. Friedman is investigating the biochemical mechanisms that critically influence the survival and effective function of neuronal and glial cell populations in the central nervous system when the brain suffers inflammation as a consequence of trauma, or in association with neurodegenerative diseases such as Alzheimer’s. Her ultimate goal is to understand how various factors affect neuronal and glial function and survival under inflammatory conditions associated with disease in the brain.

Edem Avakeme, School of Criminal Justice

M.A., Ph.D., sociology, University of Alberta, Edmonton, Canada

“Race, Social Class and Crime”

Dr. Avakeme has served as a professor of criminal justice at Temple University, Philadelphia, and as the first Andrew W. Mellon Research Fellow on Race and Crime at the Vera Institute of Justice, New York City. He will discuss two recent theories that propose explanations for a variety of urban problems related to race, poverty and crime, and his research to study the empirical validity of these hypotheses. Theorist William Julius Wilson argues that the most

important factor in the relationship between race and crime is the disproportionate number of African-Americans living in poverty, which in turn generates social disorder. Douglas Massey, however, suggests that the interaction of racial residential segregation and poverty is a more significant cause of African-American homicides and victimization.

Huixin He, Faculty of Arts and Sciences, Chemistry
M.S., chemistry, Hebei Normal University; Ph.D., chemistry, Beijing University
“Nanochemistry”

Nanotechnology’s products are so tiny that they are invisible without the aid of powerful, specialized microscopes, but their effects on science and society will likely be potent in the coming century. All cell phones, for example, employ lithium batteries that use carbon nanotubes to store energy, and many products and services in the medical field also depend on nanotechnology. The recent surge of interest in nanochemistry is driven by continuing needs to miniaturize devices and by the novel properties of nanomaterials. Dr. He’s current research involves the creation of new nanoscale structures designed to serve as elements in the next generation of ultra-small electronic devices and of highly sensitive chemical and biochemical detectors. Her presentation will include descriptions of her work using biomolecular templates and scanning probe microscopy to make and study new nanoscale chemical structures, as well as an overview of the long-term aims of nanochemistry research.

Norma Riccucci, Faculty of Arts and Sciences, Public Administration
M.P.A., public administration, University of Southern California; Ph.D., public administration, Syracuse University
“The Role of Public Management and Street-Level Bureaucrats in the Implementation of the 1996 Welfare-to-Work Law”

Dr. Riccucci’s research in the areas of employment discrimination law, affirmative action and diversity management has been published extensively. Her most recent book, *Managing Diversity in Public Sector Workforces*, was released in 2002. She also received the prestigious 2002 Distinguished Research Award from the National Association of Schools of Public Administration. The award is for the high-quality research completed over the course of one’s career. Dr. Riccucci is the youngest person to ever earn the accolade. Her current research is for an upcoming book, *Does Management Matter? The Role of Public Management and Street-level Bureaucrats in the Implementation of the 1996 Welfare-to-Work Law*. She is examining how upper-level management policies are translated into real-world settings by case workers, and whether these street-level adaptations of policies are ultimately more critical than the bureaucratic decisions that led to them.

Lee Slater, Faculty of Arts and Sciences, Earth and Environmental Sciences
M.S., marine geotechnics and geophysics, University of Wales; Ph.D., hydrology and geophysics, Lancaster University, UK
“Studying Subsurface Dynamic Processes with Environmental Geophysics”

Prior to joining Rutgers-Newark in 2002, Dr. Slater was at the University of Missouri-Kansas City. He also conducted postdoctoral research in environmental geophysics at the University of Southern Maine. He is particularly interested in how high-resolution imaging technologies are providing scientists with a greater understanding of what is going on just below the Earth’s

surface. These techniques are proving increasingly valuable in the study of near-surface environmental processes such as groundwater flow and the transport of contaminants. Dr. Slater also is applying geophysical methods to the study of engineered structures, earthquake-generating faults and archeological sites. His presentation will demonstrate how “resistivity imaging,” a tool originally developed for medical purposes, can be used to image the subsurface environment. His projects have been sponsored by federal agencies such as the National Science Foundation, U.S. Department of Energy and U.S. Geological Survey.

Karima Bennoune, School of Law

J.D., University of Michigan; M.A., University of Michigan; Graduate Certificate, women’s studies, University of Michigan

“To Respect and to Ensure: Human Rights Law, Terrorism and Conflicting State Obligations”

After receiving her law degree, Dr. Bennoune’s numerous commitments included serving as a volunteer legal advisor to the Women, Justice and Law Project in Ramallah, Palestine. In 1995 she served as a Center for Women’s Global Leadership delegate to the Non-Governmental Organizations (NGO) Forum at the Fourth World Conference on Women in Beijing. From 1995 until 1999, she was based in London as a legal advisor at Amnesty International before becoming a visiting professor at the University of Michigan and then arriving at Rutgers-Newark. Dr. Bennoune will discuss the need for governments to simultaneously ensure the protection of their citizens from abuses by others while avoiding the commission of human-rights harms themselves in the post-Sept. 11 world. “[George] Bernard Shaw wrote that ‘when the angel of death sounds his trumpet, the pretences of civilization are blown from men’s head into the mud like hats in a gust of wind,’” she observed. “Faced with a ‘war on terrorism,’ does human-rights law offer solutions? Or are we inevitably faced with key principles of human-rights law being, as Shaw warned, ‘blown into the mud?’”

Panel 2, 3:45 p.m.

Moderator: Maggie Shiffar, Faculty of Arts and Sciences, Psychology

Presenters

Gilla Kaplan, Laboratory of Mycobacterial Immunity and Pathogenesis, Public Health Research Institute

Ph.D., cell biology, University of Tromso, Norway

“Regulation of the Immune Response to Tuberculosis”

Following post-doctoral training at Rockefeller University in New York City, Dr. Kaplan continued her research for 19 years at the university before joining the Public Health Research Institute as a full-time member in 2002. She is a world-renowned authority on the immune responses exhibited by the host organism following mycobacterial and other microbial infections. Her research studies have investigated both the fundamental mechanisms of immune system responses to mycobacterial and HIV infections, as well as new treatment strategies for tuberculosis, AIDS and leprosy. A particular area of focus has been TB, where investigational immunomodulatory drugs are being tested as adjunctive therapies to traditional antibiotic treatment of various forms of the disease.

John Cantwell, Rutgers Business School, Management and Global Business
M.S.C., economics, University of London; Ph.D., economics, University of Reading
“The New Location of Technological Innovation in the Global Firm”

Dr. Cantwell is the author of *Technological Innovation and Multinational Corporations*, a book that helped launch a new branch of literature on multinational companies and technology creation when it was published in 1989. He has been a visiting professor of economics at the University of Rome “La Sapienza,” at the University of Social Sciences, Toulouse, France, and at the University of Economics and Business Administration, Vienna. Dr. Cantwell became a full professor at the University of Reading in 1993, and his many accomplishments include serving as the coordinator of a network of economists from six European countries under the EC Stimulation Plan for Economic Science and as former president of the European International Business Academy. His recent work has involved studying the closer cross-border connections being established between the major centers of particular activities – despite their geographical separation – by certain multinational corporations (MNCs). The largest MNCs have found ways to strategically combine different but complementary lines of innovation in distant centers through the emergence of internationally integrated corporate networks.

Jorge Golowasch, Faculty of Arts and Sciences, Biology/NJIT Department of Mathematical Sciences
Ph.D., biophysics, Brandeis University
“Dynamic Stability: Cellular Processes to Stabilize Flexible Neuronal Networks”

One of the most crucial properties of the nervous system is its remarkable flexibility. For example, human beings maintain a consistent identity while simultaneously adapting and changing in response to external stimuli. Dr. Golowasch’s research asks: What are the mechanisms that allow the nervous system to retain its plasticity and yet remain stable at the same time? The nervous system’s plasticity may underlie some forms of learning and memory, as well as recovery from injuries or other types of traumas. He uses a combination of electrophysiological tools and computers in his lab to study the mechanisms that permit the nervous system to function in such a flexible manner.

Anna Stubblefield, Faculty of Arts and Sciences, Philosophy
Ph.D., philosophy, Rutgers-New Brunswick
“Races as Families”

An assistant professor at Temple University for four years before joining Rutgers-Newark, Dr. Stubblefield’s research addresses the question of whether black Americans should think of each other as members of an extended racial family, and then base their treatment of each other on this consideration. Countering recent scholarship that argues that this approach undermines the idea that all people are members of the “human family,” she contends that thinking of races as families – and acting on that belief – is crucial for both black and white Americans in combating anti-black oppression. Drawing on black feminist theory, Dr. Stubblefield argues that as long as group identification does not in any way violate the rights of other people not in the group, then thinking of races as extended families is the most effective way to understand the notion of a right to racial identification.

**Andrew Harris, University of Medicine and Dentistry of NJ/NJ Medical School,
Pharmacology and Physiology
Ph.D., neuroscience, Stanford University**
“Molecular Channels of Intercellular Communication”

Dr. Harris received postdoctoral training at the Albert Einstein College of Medicine, Stanford University, Harvard University and the National Institutes of Health. He then spent 14 years in the biophysics department at Johns Hopkins University before coming to UMDNJ. He is currently a member of the Molecular, Cellular and Developmental Neurobiology 3 Study Section of the National Institutes of Health, as well as secretary of the Society of General Physiologists. Dr. Harris’ research focuses on gap junction channels, which form intercellular pores through which ions and signaling molecules pass directly between cells. These channels are pathways for direct electrical and molecular signaling between cells (when between neurons in the brain, they are called “electrical synapses”). Gap junction channels are formed of connexin protein, of which there are about 20 varieties. Defects in various connexin types can cause problems such as deafness, cardiac malformations and cataracts.

**Lewis Porter, Faculty of Arts and Sciences, Music
Ph.D., music, Brandeis University**
“Three Blues”

Dr. Porter came to Rutgers-Newark from Tufts University. Primarily a jazz scholar (although he has also taught classical music and film), he is the founder and director of the master’s in jazz history and research, and is currently compiling a jazz encyclopedia. He was nominated for a Grammy Award in 1996 for his role in producing a boxed set of John Coltrane’s music, and he is also the author of a widely acclaimed biography of the jazz legend titled *John Coltrane: His Life and Music*. For his presentation, Dr. Porter has written three themes, each more intense rhythmically and more tonally complex than the last. The themes will be played – interspersed with improvisations – until at the end they are finally played in sequence, continually, revealing their true nature as one long, building melodic line.

4:30 p.m., Reception

