

NEWSWORTHY

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College takes aim at health literacy

The Health Sciences Library recently joined forces with the School of Health Sciences and Practice to sponsor a series of health literacy seminars, "Health Literacy: Communication Techniques to Improve Patient Outcomes."

The three sessions, funded by the National Library of Medicine, were presented to diverse audiences of health professionals, providers of care, community leaders and librarians currently working in health care settings. Seminars were held at the Visiting Nurse Services of Westchester, the Maria Fareri Children's Hospital at Westchester Medical Center and the Center for Interactive Learning.



Jonathan Fader, Ph.D., center, a clinical psychologist, presented "Motivational Interviewing," which guided health care professionals in the principles and practice of health behavior change in their patients, including advice on how to provide feedback and handle resistance, among other techniques.

At another seminar, Helen Osborne M.Ed., president of Health Literacy Consulting, and author of *Health Literacy from A to Z: Practical Ways to Communicate Your Health Message* presented "Practical Strategies," a workshop to help practitioners communicate health information in ways patients can understand.

At the standing-room-only seminar held on March 29, Dr. Fader chatted with Sally Schwab, Ph.D., M.S.W., director, primary care faculty development and curriculum, Jennifer Koestler, M.D., associate dean for medical education, and principle investigators and project managers Amy Ansehl, R.N., M.S.N., FNP-C, director of public health practice and the Partnership for a Healthy Population, and Diana J. Cunningham, M.L.S., M.P.H. '00, associate dean and the Lillian Hetrick Huber Health Sciences Library Director. ▲

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EDUCATION ► RESEARCH ► SERVICE

Public health faculty examine startling effects of Social Security on life span

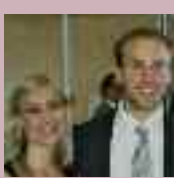


Authors Peter S. Arno, Ph.D., and Deborah Viola, Ph.D., M.B.A., discussed their study "Social Security and Mortality: The Role of Income Support Policies and Population Health," with Carroll L. Estes, Ph.D., center, chairperson of the National Committee to Preserve Social Security and Medicare.

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While some national policy-makers view Social Security as a big-ticket, politically sensitive budget item, a new study by two College researchers and their colleagues has come to some surprising conclusions. The authors claim their findings show Social Security to play an important role in maintaining the health of Americans over the age of 65.

Economists Peter S. Arno, Ph.D., professor of and director of doctoral program in the Department of Health Policy and Management, and Deborah Viola, Ph.D., M.B.A., associate professor of public health practice and associate director of the doctoral program, presented the findings of their groundbreaking study at the National Committee to Preserve Social Security and Medicare in Washington, D.C., in March. Commissioned by the Robert Wood Johnson Foundation, their study was a collaboration with James House, Ph.D., of the University of Michigan and Clyde Schechter, M.D., of the Albert Einstein College of Medicine.

The research found that Social Security keeps nearly 44 percent of older Americans out of poverty, helping improve health and lengthen lives. Dr. Arno and his colleagues argue that, by

increasing and stabilizing income for older Americans, Social Security improves seniors' living conditions and increases their access to medical care. The impact these factors have on poverty is more substantial than that of all other government programs combined.

To analyze the effect of Social Security, the researchers sought to separate its impact from other factors that have likely played a role in improving health over the last century. After controlling for changes in the economy and access to medical care (including the growth of antibiotic use and Medicare), they found that, while mortality rates for all adults fell during the 20th century, in the decades following the introduction of Social Security rates of decline for those 65 and older showed a more dramatic change than for other age groups. By contrast, rates of mortality decline for the younger age groups remained virtually the same during this period. The trend was particularly pronounced following the creation of Social Security and again soon after lawmakers increased benefits through legislation and indexing of benefits to inflation in the 1960s and 1970s.

"The political discourse around Social Security focuses exclusively on the system's long-range

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Prestigious AANS grant funds SCI research

Imagine the lab of Meena Jhanwar-Uniyal, Ph.D., research associate professor of pathology and of neurosurgery and director of the Neuro-Oncology and Molecular Genetics Laboratory, as a literal cornucopia of gourmet medical investigation.

Last year, a resident in her lab received an American Association of Neurological Surgeons (AANS) award for trying to cure spinal cord injury with a compound found in turmeric, an old Indian spice from the ginger family. This year, neurosurgery resident Craig Shannon, M.D., PGY IV, has won the Neurosurgery Resident Education Fund Grant from the AANS for spinal cord injury research. His work entailed combining the same compound, called curcumin, with compounds found in green tea. Dr. Shannon has been named an AANS DePuy Spine Research Fellow and awarded a one-year \$40,000 grant. This award is given to only eight neurosurgery residents in the nation.

Dr. Shannon's work was an outgrowth of the research on curcumin by Ryan Ormond, M.D., conducted in Dr. Jhanwar-Uniyal's lab. Dr. Ormond observed that, while curcumin was ineffective in treating the inflammation caused by spinal cord injury (SCI), combining curcumin with neural stem cells was remarkably effective.

Dr. Shannon assisted in Dr. Ormond's research and kept questioning why curcumin alone did not produce the anti-inflammatory results in severe SCI.

It began when Dr. Shannon walked into his mentor's office one day drinking a cup of green tea. "Dr. Jhanwar-Uniyal mentioned to me that there was a compound in green tea that had both anti-inflammatory properties and anti-cancer properties," said Dr. Shannon. "She suggested we attempt to use this information in our spinal cord model in conjunction with curcumin or stem cells."

Catechin—a powerful, water soluble polyphenol and antioxidant—is a tannin, peculiar to green tea, since the fermentation process reduces catechin in black tea. It is easily oxidized in comparison to curcumin, which is only lipo-soluble. The most abundant of the catechins in green tea is Epigallocatechin-3-gallate (EGCG). Dr. Shannon realized that these naturally occurring compounds, curcumin and EGCG, can interact with several signaling pathways associated with inflammation and cytokine production. These inflammatory compounds are a major hurdle in recovery from SCI due to gliosis—a process leading to scarring in the central nervous system.

Both curcumin and EGCG work via similar pathways to suppress inflammation. Dr. Shannon's work will not only look at the synergistic effect of EGCG and curcumin, but will also decipher the types of inflammatory markers produced during the spinal cord injury.

"If our research is successful, if natural anti-inflammatory compounds are the solution, maybe someday

all one will have to do to cure spinal cord injury is drink green tea in the morning, eat curry for lunch and have a glass of red wine at night," Dr. Shannon said lightly, explaining that resveratrol, a compound in red wine also has shown benefit in some studies as a natural anti-inflammatory.

He said his best ideas for research have come from dialoguing with Dr. Jhanwar-Uniyal. She has a

passion for helping residents succeed, a vast knowledge of the literature and her phone is always on, he asserted, clearly impressed. He is also grateful for the support of other collaborators involved in the study: Raj Murali, M.D., professor and chairman of the Department of Neurosurgery, Kaushik Das, M.D., associate professor of neurosurgery, and Richard J. Zeman, Ph.D., associate professor of cell biology and anatomy.

"A project is a multifaceted discipline that requires expertise and a clear knowledge of literature review and understanding of science," said Dr. Jhanwar-Uniyal. "The work of Drs. Shannon and Ormond is a good example of the fact that projects are for the long haul and are likely to shift into other areas, or that the slightest change in protocol can lead to entirely different conclusions."

Dr. Shannon said he first became interested in spinal cord injury during his neurosurgery rotation as a medical student. One patient he encountered was an 18-year old male who had sustained a low cervical spinal cord injury from diving into a shallow, rocky river.

"I remember thinking that this young athletic man, not much younger than myself, would spend the rest of his life in a wheelchair," said Dr. Shannon. "I wondered what I would do in his shoes. Would I give up? Would I believe that my doctors might be able to cure my injury? There is not a good treatment to change this type of injury. The prognosis for a complete injury is that a patient will not be able to walk, may need constant nursing care, and that his life and his family's life will change forever. I remember thinking that I would like to be able someday to change this. I want to be able to help patients with spinal injuries to recover and walk someday." ▲



Neurosurgery resident Craig Shannon, M.D., and his faculty mentor Meena Jhanwar-Uniyal, Ph.D., research associate professor of pathology and of neurosurgery, discuss the future of their work with curcumin and EGCG.

Accolades

■ *Kathryn E. McGoldrick, M.D.*, professor and chair of the Department of Anesthesiology, was recently elected to the Board of Trustees of The Anesthesia Foundation (AF). The AF, one of the four foundations of the American Society of Anesthesiologists (ASA), is a non-profit organization that provides low-interest loans to residents in anesthesiology. Recently, the AF expanded its outreach to assist practicing anesthesiologists who are experiencing a personal, medical or practice hardship. Dr. McGoldrick also serves on the Board of Directors of another ASA foundation, the Foundation for Anesthesia Education and Research, whose mission is to advance medicine through research and education in anesthesiology.

■ *Padmini Murthy, M.D., M.P.H.*, assistant professor of health policy and management and of family and community medicine, and international health program director, received the National Council of Women of the United States' Distinguished Leadership and Achievement Award. The honor recognizes outstanding leadership, commitment, advocacy, vision and humanitarian service addressing the needs of women and children, especially the empowerment of women and girls and their human rights. It was given in conjunction with the 100th anniversary of International Women's Day on March 8.

■ *Denise C. Tahara, M.B.A., M.Phil., Ph.D.*, assistant professor of health policy and management and director of M.P.H. studies, was invited to present "Designing and Delivering Preconception Care: The Opportunity to Integrate Strategic Design Thinking and Global Public Health Priorities" at the 11th International Conference on Knowledge, Culture and Change in Organization, held in Madrid in June.

Iota chapter of AOA welcomes new inductees

The 55th Alpha Omega Alpha (AOA) Visiting Professor Lecture and Induction Ceremony, held on the evening of March 24, was cause for celebration for the newest members of the national honor medical society. Thirty-eight medical students were inducted, all of them boasting high academic achievements and qualities of good character, leadership and professionalism and a dedication to community service.

The evening also honored AOA alumni initiates Walter E. Longo, M.D. '84, professor of surgery and of obstetrics, gynecology and reproductive sciences at Yale, and John O'Grady, M.D. '70, director of medical student education at Lenox Hill Hospital. The college faculty initiates were Howard Blanchette, M.D., professor and chairman of the Department of Obstetrics and Gynecology, and Kathryn McGoldrick, M.D., professor and chair of the Department of Anesthesiology. Michaela Mocanu, M.D., of the Department of Medicine at Norwalk Hospital, received the 2011 Voluntary Faculty Award.



Iota chapter officers are, from left: Jayne Bird, vice president; Timothy Capecchi, president; Jennifer Nowak, secretary; and Amanda Fantry, treasurer.

Prior to the induction ceremony and banquet at Tappan Hill in Tarrytown, N.Y., Molly Cooke, M.D., professor of clinical medicine at the University of California, San Francisco, presented the visiting professor lecture on campus, "Doctors' Stories: Fifty Years of Physicians in the



Iota chapter councilor William H. Frishman, M.D., left, and visiting professor Molly Cooke, M.D., second from left, congratulated AOA faculty initiates Kathryn McGoldrick, M.D., and Howard Blanchette, M.D.

Public Imagination." Dr. Cooke recounted the life lessons that could be learned from physician characters on television from the past five decades. Her talk included fictional physicians Ben Casey, Marcus Welby, Michaela Quinn and Heathcliff Huxtable, among others. ▲

SPAD tradition continues with a look to the future of medicine

The Class of 2014 paid homage to the history of medicine before looking to the future at the 26th Annual Student Physician Awareness Day (SPAD), held on April 14 at the Maria Fareri Children's Hospital at Westchester Medical Center. The day-long conference organized by first-year medical students addresses issues in medicine that are not traditionally covered in the curriculum. This year's theme was "Evolution of the Doctor: Trends in the Future of Medicine."

Keynote speakers were Jonathan Darer, M.D., M.P.H., chief innovation officer for the Division of Clinical Innovation for Geisinger Health System, and John A. McClung, M.D. '75, professor of clinical medicine and professor of clinical public health. Dr. Darer shared his expertise in leveraging analytics, clinical decision support and reengineering solutions to improve patient care. Dr. McClung, who serves as director of the College's Cardiovascular Fellowship Training Program and director of the

Noninvasive Cardiology Laboratory at the Westchester Medical Center, presented "The Evolution of the Doctor/Patient Relationship." Dr. McClung is also the founder of the College's Division of Clinical Ethics of the Department of Medicine.

Participants gained a deeper appreciation of the changing role of the physician in light of rapid innovations in research, technology and business in breakout sessions presented by Joseph Zuckerman, M.D., chairman of orthopedic surgery at New York University's Hospital for Joint Diseases; Jay Parkinson, M.D., M.P.H., co-founder of Hello Health, a web-based patient service; Jeffrey S. Stier, M.D., vice

president of medical affairs at Sound Shore Medical Center; and Josephine Johnston, L.L.B., M.B.H.L., research scholar and director of research operations at The Hastings Center. ▲



SPAD committee members worked diligently to ensure the day's success. From left were: Alex Dressler, treasurer; Alyson Small, publicity and residency fair chair; Max Klein, speaker chair; Nishi Mehta, fundraising chair; and Sam Kim, SPAD chair and residency fair chair.

College receives full AAALAC accreditation

New York Medical College has been awarded full accreditation by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC). The news came after a team made its triennial site visit to the campus last November. Attainment of AAALAC accreditation demonstrates a high regard for animal well-being and a commitment for maintaining a quality animal care and use program.

The Department of Comparative Medicine, which has oversight of the animal care and use program

at the College, was commended by the Council for its institutional support, evidenced by the active participation of senior administrative officials, recent facility improvements, outstanding veterinary care, and excellence in husbandry and sanitation. The Council also praised the engagement, commitment and knowledge displayed by the College's Institutional Animal Care and Use Committee (IACUC) members.

"The Department of Comparative Medicine animal care staff has demonstrated a strong commitment to advancing our program

development. It was their outstanding effort that was so well received by the AAALAC," said Sulli J. Popilskis, D.V.M., Dip ACLAM, director of comparative medicine. "AAALAC accreditation would not be possible without the cooperation and efforts of members of the College's animal care and use community including the Office of Research Administration, the IACUC, facilities personnel, the Departments of Environmental Health and Safety and Health Services and all of the principal investigators and their staff." ▲

College receives two out of three CDC grants for Lyme disease

When the Centers for Disease Control and Prevention (CDC) issued a national call last year for proposals to address novel or improved diagnostic approaches to Lyme disease, or to explore its natural history, preeminent researchers Ira Schwartz, Ph.D., professor and chairman of the Department of Microbiology and Immunology, and Gary P. Wormser, M.D., professor of medicine, chief of the Division of Infectious Diseases and vice chairman of the Department of Medicine, did not hesitate to apply. These two researchers, with hundreds of published papers between them, are uncontested experts in tick-borne infections. And the CDC seemed to concur.

After reviewing the proposals, the agency awarded only three grants—two of them to New York Medical College. Dr. Schwartz will receive \$250,000 a year for three years for his study on a Lyme diagnostic test, while Dr. Wormser will receive \$300,000 a year for five years for a new study of the clinical aspects of Lyme disease.

“The fact that there was a call for proposals from the CDC in the research in these specific areas, and two out of three grants were awarded to New York Medical College, is confirmation that we are one of the premier institutions carrying out research in the diagnosis and treatment of Lyme disease,” said Dr. Schwartz. “We’re very proud of that.”

Dr. Schwartz is working to develop a new diagnostic blood test that could lead to dramatic changes in the way many infectious diseases are diagnosed. Utilizing information from the Human Genome Project, Dr. Schwartz will look simultaneously at

evidence for the expression of 30,000 different genes in the blood of known Lyme disease patients to see if there is a specific pattern at the onset and at the cure.



The CDC is funding two of the College’s renowned Lyme researchers: Ira Schwartz, Ph.D., left, professor and chairman of the Department of Microbiology and Immunology, and Gary P. Wormser, M.D., professor of medicine, chief of the Division of Infectious Diseases and vice chairman of the Department of Medicine.

Current tests simply show if blood has made antibodies to the bacterium. In the case of *Borrelia burgdorferi*, the bacterium that causes Lyme disease, antibodies may not appear until more than a week after a tick bite, so recent infection can be difficult to diagnose. Another limitation of the antibody test is that it can still show positive results after the patient is cured with antibiotics.

Dr. Wormser’s study looks at whether patients treated for Lyme disease are more likely to have persistent symptoms than individuals who did not have Lyme disease. He will conduct the nation’s first prospective, controlled longitudinal cohort

study in which subjects with and without Lyme disease are carefully evaluated for a full year. His study will look for the incidence of post-Lyme disease syndrome (PLDS) and the associated medical

complications and economic costs. He will obtain blood samples from patients to be shared with other investigators for future research on possible biomarkers associated with PLDS.

In a different group of patients, Dr. Wormser will describe the outcome of culture-confirmed patients with

Lyme disease more than 10 years after diagnosis and treatment, another scientific first.

Lyme disease is caused by a bacterial organism that is transmitted to humans through the bite of an infected tick. Although the outcome after treatment is generally excellent, some patients complain of persistent subjective symptoms such as fatigue, musculoskeletal pains, or problems with concentration and memory, despite resolution of the objective signs of the disease. Most experts believe that these symptoms are also common in the general population and a causal association between Lyme disease and persistent symptoms has not been established. ▲

Children’s Environmental Health Center receives Distinguished Public Health Service Award

Coinciding with National Public Health Week, the Westchester County Board of Health recognized the achievements of community partners and county public health professionals at a breakfast held at the Crowne Plaza Hotel in White Plains, N.Y., on April 5. Among more than 300 attendees were Westchester County Executive Rob Astorino and Cheryl Archbald, M.D., M.P.H., acting commissioner of the Westchester County Department of Health and a lecturer in the School of Health Sciences and Practice. Among the honorees was the Children’s Environmental Health Center of the Hudson Valley (CEHCHV), which was recognized with the 2011 Distinguished Public Health Service Award.

The County Board of Health established the award ten years ago to honor individuals and organizations that, in concert with the department, promote public health in Westchester and demonstrate vision and commitment to public health. Nominations for the award are solicited from the community.

Now in its third year, the CEHCHV is a collaborative effort of New York Medical College’s Institute for Public Health and Maria Fareri Children’s Hospital at Westchester Medical Center. Directed

by Allen J. Dozor, M.D., professor of pediatrics and chief of pediatric pulmonology, the Center draws expertise from subspecialists in many disciplines. Among them is Robert W. Amler, M.D., dean of the School of Health Sciences and Practice who is also an environmental epidemiologist, pediatric specialist, and a pioneer in the development of the international network of Pediatric Environmental Health Specialty Units. The CEHCHV team is rounded out by Diane E. Heck, Ph.D., professor and chair of the Department of Environmental Health Science; Amy Ansehl, R.N., M.S.N., FNP-C, director of public health practice and of the Partnership for a Healthy Population; Heather Archer-Smith, M.P.H. ’10, assistant director of public health practice; and Y. Cathy Kim, M.D., Agnes Banquet, M.D., and Sankaran Krishnan, M.D., all assistant professors in the Department of Pediatrics.

“The Board of Health selected the Children’s Environmental Health Center of the Hudson Valley because we were impressed by the breadth and depth of the organization’s research, educational outreach and medical consultations on behalf of children,” said Douglas Aspros, M.D., president of the Westchester County Board of

Health. “We were very impressed with its substantial contributions in the short time since it was founded. No other organization in our county has taken such an in-depth approach to addressing children’s environmental health concerns, and no other has had so great an impact in this important arena. The center adds valuable resources that are not duplicated anywhere in the county.”

“On behalf of the entire staff of the Children’s Environmental Health Center of the Hudson Valley, thank you so much for this award and acknowledgement of our work,” said Dr. Dozer who accepted the award. “Children are the most vulnerable members of our community. The link between our environment and most, if not all, childhood diseases is unequivocal. This would not have been possible without the essential support of the Westchester Community Foundation, the Alfred E. Smith Foundation and the New York State Department of Health as well as the physicians and faculty at Maria Fareri Children’s Hospital and New York Medical College.”

For more information, please visit www.childrensenvironment.org. ▲



Graduate Student Research Forum displays a broad field of research

The Graduate Student Association, which represents M.S. and Ph.D. students in the Graduate School of Basic Medical Sciences, hosted the 23rd Annual Graduate Student Research Forum on April 6. Their success was evidenced by the quality and depth of the student presentations. A keynote address by Stephen Dumler, M.D., professor of pathology and of medical microbiology at the Johns Hopkins University School of Medicine,

intrigued the audience on the subject of “Cellular reprogramming by Anaplasma phagocytophilum: A novel model for survival and transmission of intracellular microbes.” Dr. Dumler is also professor of molecular microbiology and immunology at Johns Hopkins University Bloomberg School of Public Health, and professor of cellular and molecular medicine for the Markey Graduate Program at the John Hopkins School of Medicine.



GSA leadership met with keynote speaker Stephen Dumler, M.D., center. They are: Robert Bednarczyk, treasurer, Jessica Harkhani, secretary, Andrea Love, vice president of the Graduate Student Research Forum, and Erik Trexler, president.



AnnMarie Dellipizi-Citardi, M.S. '94, Ph.D. '97, an alumna of both degree programs, served as master of ceremonies. Dana G. Mordue, Ph.D., assistant professor of microbiology and immunology, was recognized during the proceedings when she was presented with the 2011 Honored Faculty Award, which cited her enthusiasm, dedication to research and commitment to graduate education.

“The Forum is a microcosm of the scientific enterprise as well as a reflection of our own educational objectives,” said **Francis L. Belloni, Ph.D.**, dean of the Graduate School of Basic Medical Sciences. He is pictured at far right of the presenters. ▲

ORAL PRESENTATIONS

FIRST PLACE

Andrea C. Love (8)

“TLR7-Dependent Recognition of *Borrelia burgdorferi* RNA Induces Type I Interferon by Human Immune Cells”

Sponsors: Ira Schwartz, Ph.D., professor and chair of microbiology and immunology, and Mary M. Petzke, Ph.D., assistant professor of microbiology and immunology

SECOND PLACE

James R. Cassuto (1)

“Coronary Arterioles of Type 2 Diabetic Patients Exhibit Diminished Dilatation to Sudden Increases in Wall Shear Stress”

Sponsor: Zsolt Bagi, M.D., Ph.D., assistant professor of physiology

THIRD PLACE

Jennifer M. Minieri Arroyo (4)

“Influenza Virus Infection: Are Paraspeckles Involved?”

Sponsor: Doris Bucher, Ph.D., associate professor of microbiology and immunology

NOVICE POSTER PRESENTATIONS

FIRST PLACE

Neel J. Patel (2)

“Moderate Cardioprotective Effects of the Purine Receptor P2X Agonist MRS 2339 in Canine Model of Heart Failure”

Sponsor: Fabio Recchia, M.D., Ph.D., professor of physiology

SECOND PLACE

Christine E. LeRoy (5)

“The Determination of Whether the Degradation of Polymerase Delta Subunits is a General Response to Different Kinds of DNA Damage and DNA Damage Signaling Pathways”

Sponsor: Marietta Lee, Ph.D., professor of biochemistry and molecular biology

THIRD PLACE

May M. Rabadi (3)

“HMGB1 Release from Kidneys during Renal Ischemia-Reperfusion Injury is Mediated by Uric Acid”

Sponsors: Michael Goligorsky, M.D., Ph.D., professor of medicine, and Brian Ratliff, Ph.D., instructor of medicine

SENIOR POSTER PRESENTATIONS

FIRST PLACE

Michelle A. Krupna (7)

“*Borrelia burgdorferi* Pathogenic Potential Correlates with Type I and Type III IFN Production by Human Immune Cells”

Sponsors: Drs. Schwartz and Petzke

SECOND PLACE

Gagandeep K. Narula (9)

“The Strictly Conserved R321 Residue in the Active Site of *Escherichia coli* Topoisomerase I Plays a Critical Role in DNA Religation”

Sponsor: Yuk-Ching Tse-Dinh, Ph.D., professor of biochemistry and molecular biology

THIRD PLACE

Priyanka Ganguli (6)

“Genotypic Comparison of *Borrelia burgdorferi* Clinical Isolates from Northeast and Midwest Regions”

Sponsor: Dr. Schwartz

THIRD PLACE

Linnea R. Vose (10)

“Pharmacological Rescue of Learning Defects Associated with Neurofibromatosis Type 1”

Sponsor: Frances Hannan, Ph.D., assistant professor of cell biology and anatomy

Public health faculty examine startling effects of Social Security on life span *continued from page 1*

financial problems, rather than on the benefits of improved health and reduced poverty,” said Dr. Arno. “Social Security remains a key source of income for most of its recipients. In 2008, well over half of beneficiaries aged 65 years or older received 50 percent or more of their total income from their monthly Social Security checks. For a third of the elderly beneficiaries, it provided 90 percent or more of their income.”

Because Social Security is such a critical source of income, cuts in benefits would inevitably have a negative effect on the health of a great many retirees, the research concludes. “If Social Security is put on the chopping block, lawmakers will jeopardize the most important safety net for America’s elderly,” Dr. Arno said. “By not considering the benefits of reduced mortality and poverty reduction, policy-makers

are grossly underestimating Social Security’s benefits to society.”

In a recent opinion piece in *Politico*, Drs. Arno and Viola wrote: “It seems devilishly ironic that the rationale for hiking the eligibility age, which effectively cuts benefits, is that we are living longer – and that our increased longevity is due, in part, to the benefits of Social Security.” ▲

D.P.T. students present their doctoral projects

The Doctor of Physical Therapy (D.P.T.) Class of 2011 checked off another milestone before Commencement when they presented their culminating doctoral projects at the Seventh Annual Doctoral Project Presentation Day held on April 14 in the Medical Education Center. After the students presented their work in the areas of clinical research, education or public health service, in platform and poster format, they contemplated their own futures while listening to keynote speaker Matthew Hyland, P.T., Ph.D., M.P.A. Dr. Hyland, who is president of the New York Physical Therapy Association and Rye Physical Therapy and Rehabilitation, presented “Refocusing on Vision 2020.” Vision 2020, the official vision and strategic plan of the

American Physical Therapy Association, states, “By 2020, physical therapy will be provided by physical therapists who are doctors of physical therapy, recognized by consumers and other health care professionals as the practitioners of choice to whom consumers have direct access



Before presenting their doctoral projects, the D.P.T. Class of 2011 posed for a group photo outside of the School of Health Sciences and Practice.

for the diagnosis of, interventions for, and prevention of impairments, activity limitations, participation restrictions, and environmental barriers related to movement, function, and health.” ▲



Keynote speaker Matthew Hyland, P.T., Ph.D., M.P.A., center, was welcomed by the event's moderator Catherine Curtis, P.T., Ed.D., assistant professor of physical therapy, and Michael J. Majsak, P.T., Ed.D., associate professor and chairman of the Department of Physical Therapy.

D.P.T. CLASS OF 2011 DOCTORAL PRESENTATIONS

Platform Presentations

A Brochure and DVD for Developmental Exercise for NICU Graduates

Jessica Garry, Sarah Parker, Tracy Seckler and Kathryn O'Brien

Advisor: Susan Ronan, P.T., D.P.T., assistant professor

The Effectiveness of a School Based Group Exercise Class for Teenagers with Disabilities

Kira Alinea, Lynette Burrwell, Abigaile Cabalfin, Erin Hunt and Monique Morin

Advisor: Dr. Ronan

Metabolic Rehabilitation: An Evidence-Based Model of Physical Therapy Intervention for Type 2 Diabetes

Sophie Benoist, Rachel Hearst and Jennifer Leonard

Advisors: Dan Millrood, P.T., Ed.M., clinical instructor, and Bobby Belarmino Jr., P.T., D.P.T., assistant professor and academic coordinator of clinical education

The Motor Behavior of Children with Cerebral Palsy Participating in an Eight Week Robot-Assisted Upper Limb Rehabilitation Program: Inferences of Active Engagement and Learning

Judy Ly

Advisor: Michael J. Majsak, P.T. Ed.D., associate professor and chair

Diagnostic Imaging Information in Civilian Physical Therapy Practice: Attitudes, Access and Use in Massachusetts and New York

Anna Hodas

Advisor: Janet Dolot, P.T., D.P.T., assistant professor

An Ergonomic Program Promoting Upper Body Musculoskeletal Health for Office-Based NYMC Employees

Sharon Fong and Jared Ruggieri

Faculty Advisor: Dr. Dolot

Poster Presentations

Effective Teaching Strategies for Promoting Learning of Neurological Examination and Evaluation Skills for Doctor of Physical Therapy Students

Steven Capitani, Angela Carvalho and Christopher Sowers

Advisor: Dr. Majsak

PD Fit: An Interactive Tool and DVD for Individuals with Early Parkinson's Disease

Bobby Geevarughese, Jimmy Nunez, Randall Pifer and Frank Zalesny

Advisor: Catherine Curtis, P.T., Ed.D., assistant professor

Pre-school Teacher Compliance and Adherence in Using the Fitness is Fun Program

Bridget Thompson, Erica Lofaso, Jacqueline LaBarbera, Sara-Jeanine Petrescu and Jacqueline D'Alessio

Advisor: Dr. Ronan

National Public Health Week focuses on safety



A highlight of National Public Health Week was a presentation by Henry Falk, M.D., M.P.H., (at podium). He was welcomed by (left to right) Brieyona Reaves, StuHE vice president; Annette Choolfaian, R.N., M.P.A., professor and chair of the Department of Health Policy and Management; Ijeoma Opara, StuHE co-president; and Robert W. Amler, M.D., dean of the School of Health Sciences and Practice.

Across the nation, National Public Health Week (NPHW) is organized by the American Public Health Association (APHA), the world's oldest and most diverse organization of public health professionals working to improve public health since 1872. On campus, NPHW events were organized by the Student Healthcare Executives Club (StuHE) in the School of Health Sciences and

Practice (SHSP) during the week of April 4. This year's theme, “Safety is No Accident,” focused on helping Americans live injury-free at work, at home, at play and in the community.

The week's events included special guest speaker presentations. Thomas McCarthy, OSHA compliance officer, addressed hazards associated with various occupations and ways to prevent accidents in the workplace. Henry Falk, M.D., M.P.H., a retired rear admiral who is a consultant for the Centers for Disease Control and Prevention and a former assistant U.S. Surgeon General, covered public health actions, strategies, and policies to prevent and mitigate the burden of injuries.

Students had the opportunity to learn about career paths in public health from a guest panel of public health leaders in an interactive environment. Among the presenters were: Joan Facelle, M.D., M.P.H. '03, Rockland County

Commissioner of Health and a distinguished lecturer of epidemiology and community health in the SHSP; Bernadette Kingham-Bez, M.P.H. '04, executive director of St. Vincent's Hospital, Westchester, and senior vice president of Saint Joseph's Medical Center in Yonkers, N.Y.; Jason Tenzer, M.P.H. '04, administrative director of faculty practices for NYU Langone Medical Center and New York University Hospital for Joint Diseases; Kelly Ernst, M.P.H., public health specialist of the U.S. Fund for UNICEF; and Nancy Stambler, M.S., senior director for Progenics Pharmaceuticals, Inc. and an adjunct lecturer in the Department of Epidemiology and Community Health. She is currently a Dr.P.H. candidate in the SHSP.

Less formal NPHW events on campus included poster presentations and a screening of the movie *Food, Inc.*, followed by a moderated discussion, with healthy snacks provided by the NYMC Community Garden. ▲

M.D./Ph.D. candidate awarded AMA seed money grant

Cheng-Chia (Fred) Wu, an M.D./Ph.D. candidate in the Department of Pharmacology, has been named a recipient of the American Medical Association (AMA) Foundation 2011 Seed Grant Research Program. The program provides medical students, residents and fellows with grants of up to \$2,500 for basic science or clinical research projects. Only 37 awards are bestowed annually.

Mr. Wu is exploring the role of 20-HETE, a pro-hypertensive and pro-inflammatory lipid mediator, in androgen-induced hypertension. During his research, he also became interested in studying the role played by 20-HETE in prostate cancer, the subject of his grant. His mentor, Michal L. Schwartzman, Ph.D., professor and acting chair of the Department of Pharmacology, calls him “motivated, talented and exceptionally curious.”

“I am in awe of Fred’s achievements in research, coursework and teaching,” said Dr. Schwartzman.

“He excels in his studies and serves as a laudable role model for students and fellows in my laboratory as well as in the department. Fred’s achievements speak volumes about his high degree of motivation and talent as a future researcher.”

Mr. Wu explained the significance of his research by explaining that androgen, a male hormone, may contribute to gender differences in the prevalence of high blood pressure and cardiovascular disease.

“Given that androgens play a major role in prostate cancer progression, I became curious about the association between androgen and 20-HETE, which I was seeing in my hypertension studies. I wondered if the same were true in prostate cancer,” he said. “My mentor, Dr. Schwartzman, allowed me to experiment with this topic as a side project in addition to my thesis. Fortunately I was able to obtain exciting preliminary data that were the basis for my application for the American Medical Association Seed Grant.”

Prior to that, Mr. Wu had received from the NIH an F30 Ruth L. Kirschstein National Research Service Award, which funds his Ph.D. studies and his medical education.

He explained the difference between the NIH F30 grant and the AMA Seed grant: the F30 gives students the opportunity to learn and grow as a scientist under the mentorship of an established principal investigator. In contrast, the AMA seed grants require students to generate a project that is not conducted in their laboratory by their mentor. This grant forces students to test the scientific skills they’ve learned as a student to determine if they have what it takes to develop into an independent researcher.

“The AMA Foundation is committed to encouraging the best and brightest researchers,” said AMA Foundation president Barney Maynard, M.D. “There are few opportunities available to younger scientists to help jump start projects. Our seed grants provide important support and professional development for physicians at the start of their careers.”



M.D./Ph.D. candidate Fred Wu and his mentor Michal L. Schwartzman, Ph.D., professor and acting chair of the Department of Pharmacology, take a break from their latest experiment.

“One of Fred’s great attributes is his curiosity,” said Dr. Schwartzman. “From the first day he joined the lab, he forged ahead, questioning data and views, as well as searching for new interpretations and implications. He initiated this 20-HETE cancer project and is leading it with little help. He single-handedly seeks the advice of cancer researchers in the College community, obtained several cell lines and measured 20-HETE. I am amazed at his ability to work on two seemingly different research projects and come up with novel ideas.”

Mr. Wu attended the University of California in San Diego and worked for two years as a researcher at the University of Rochester prior to enrolling as a dual degree student at New York Medical College. Mr. Wu will defend his Ph.D. thesis this summer and begin his last two years of medical school in the fall. ▲

Department of Cell Biology and Anatomy hosts annual research forum

The conference room in the Department of Cell Biology and Anatomy held an air of anticipation on March 22 as presenters and their peers, judges and faculty gathered to observe seven students present their research at the department’s annual student research forum. A panel of judges comprised of Jan Geliebter, Ph.D., professor of microbiology and immunology, Jin Li, M.D., Ph.D. ’01, assistant professor of neurology, William Ross, Ph.D., professor of physiology, and Wenhui Wang, M.D., professor of pharmacology, observed the students’ presentation skills and queried their methods and outcomes before offering constructive criticism and

suggestions. **Joseph D. Etlinger, Ph.D.**, standing far right, professor and chairman, and **Victor A. Fried, Ph.D.**, second from right, professor of cell biology and anatomy and graduate program director, congratulated the presenters on their works and enthusiasm.

In the photo below are presenters, seated from left:

Linnea Vose

Pharmacological rescue of learning defects associated with neurofibromatosis Type 1

Faculty Advisor: Frances Hannan, Ph.D., assistant professor

Robert Stobezki

Brown adipocyte differentiation in nonmyogenic cells of the embryonic mouse limb

Faculty Advisor: Stuart A. Newman, Ph.D., professor

Katisha Gopaul

Role of SNAP-25 in induction of presynaptic long-term depression (LTD) of synaptic strength

Faculty Advisor: Patric K. Stanton, Ph.D., professor

Presenters standing, from left are:

Chirag Upreti

Status epilepticus produces long-term enhancement of vesicular release and functionally abnormal presynaptic mossy fiber terminals in the hippocampus

Faculty Advisor: Dr. Stanton

Jason Lee

Dependence of Golgi apparatus integrity on nitric oxide in vascular cells: Implications in pulmonary arterial hypertension

Faculty Advisor: Pravin B. Sehgal, M.D., Ph.D., professor

William Oh

Glucose toxicity in neurological disease

Faculty Advisor: Richard J. Zeman, Ph.D., associate professor

John Sullivan

Zinc modulates β -Amyloid’s inhibition of LTP

Faculty Advisor: Dr. Stanton ▲

