



Research News

**Message From the Senior Associate Dean of Research
Richard H. Kennedy, PhD**



Stritch School of Medicine Senior Gift to Support Research

I am excited to announce that the Stritch School of Medicine Class of 07th chose to support research with their senior gift. Specifically, the gift was designated to support the stipend of a medical student who works in the Burn and Shock Trauma Institute during next summer's eight-week STAR program (Student

Training in Approaches to Research). This is a relatively unique gift for a graduating medical school class, and Dean Lee, Assistant Dean Brubaker and I would like to thank the class for recognizing the importance of research in medical school as well as for honoring our program and the Burn and Shock Trauma Institute with their gift.

Pre-review of Grant Applications

As extramural funding continues to be a challenge, the Office of Research Services (ORS) has worked to support and initiate programs that can assist investigators within the Stritch School of Medicine and the Niehoff School of Nursing. One such program, which was established during the past year, provides honoraria for external pre-review of applications for external funding. It is believed that this pre-review process can have a significant impact on the ultimate success of the proposal. If you are preparing an application and are interested in pre-review, please contact me by phone (216-5139) or e-mail (rkennedy@lumc.edu). In general, the process requires that you identify a senior investigator in your field and ask if they would be willing to review your application; a \$200 honorarium is available. This individual should not be involved in the proposed research project.

Once the individual is identified, please submit their name to Carol Wojtulewicz (cwojtul@lumc.edu) in ORS. She will contact the reviewer, arrange for payment of the honorarium once we have received your written review, and ask you to forward your proposal to both the reviewer and our office. We require that you have at least three weeks to revise the application based upon the reviewer's comments.



**Message From
Assistant Dean of Clinical and Translational Research
Linda Brubaker, MD, MS**



The Inaugural Patient-Oriented Research Team (PORT) Seminar

Researchers from across campus came together on April 25th for the inaugural PORT (Patient-Oriented Research Teams) seminar. For years, biomedical science has existed in informational silos with little cross-talk between basic and clinical scientists. Although advances

were made, many investigators expressed concern about the slow rate of meaningful improvements in patient care. Over the past few years, leadership of the NIH has emphasized the need for translational research, consistent with their mission of improving the health of Americans.

Here at Loyola we have outstanding basic scientists, many of whom have significant funding from NIH and other important research organizations. In addition, we have a wealth of clinicians who are increasingly engaged in clinical research. Although, some of these individuals have formed their own professional research relationships, it seemed that there may be an opportunity to collaborate in a more productive way. To advance our institutional mission, it was important to bring our researchers together in meaningful discussions. The goal of these interactions is to recognize existing PORTS and stimulate the formation of additional PORTS.

For the first PORT seminar, a neuroscience PORT presented the work of their successful collaboration. Kathy Jones, PhD, a well-known and continuously funded NIH neuroscientist teamed up with Sam Marzo, MD, one of Loyola's finest Otolaryngology specialists. The focus of their collaboration was facial nerve palsy. As an introduction, the team members discussed how their collaboration began and the essential elements for their success to date. This included recognition of how their mutual needs were met: the basic science researchers' need for a translational component to their research; and the clinical departments' need for furthering their mission, including patient care, resident education, and research. Some of the key features for their PORT formation were a common research interest, dedicated parties on both ends, a dedicated head of project (Eileen Foecking, PhD), start up funding (provided by the clinical department in this situation), laboratory space and eager trainees.

Dr. Marzo presented the clinical picture of a patient with facial nerve injury. He reviewed the devastating consequences of this injury and the severely limited treatments currently available. Dr. Jones then discussed how a similar injury is of essentially no consequence in the rat model. Clearly there was an opportunity for translational research. Once formed, the PORT team decided to determine whether electrical stimulation enhances facial nerve regeneration in rats, to characterize the effects of electrical stimulation and steroids on facial nerve recovery, and to develop an intracranial model of facial injury.

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Research News

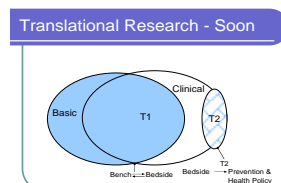
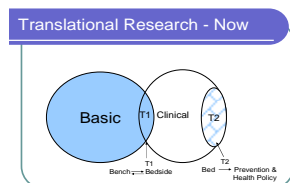
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Devyani Lal, MD, a resident in the Loyola Department of Otolaryngology-Head & Neck Surgery, extended her already significant skill set by designing and conducting a series of experiments to test the hypothesis that electrical stimulation of the facial nerve accelerates functional recovery after a crush injury. Electrical stimulation significantly reduced recovery time for the semi-eyeblink reflex, and stimulated rats showed a trend to shorter recovery time. The clinical team has now taken these results back to affected patients, including patients with Bell's palsy, traumatic paralysis and iatrogenic paralysis (such as acoustic neuroma/ parotid surgery). Clearly this team has just begun its work together, but already they have identified potential use of electrical stimulation for more rapid, predictable and favorable facial nerve functional recovery in Loyola patients. The Loyola patient community will benefit, but the potential does not stop there. The educational experience for all involved has resulted in local and national presentations. Dr. Lal was awarded the First Place Research Award for this work at the Chicago Laryngological and Otological Society. In addition, a cohort of MD and PhD trainees has seen the benefit and utility of PORTs.

After the main scientific part of the program, MaryPat FitzGerald, MD moderated a session called "No Question Too Stupid". This forum attempts to address the lack of communication between basic and clinical investigators by answering a "quiet" question in a public forum. Fletcher White, PhD and Susan McGuire, PhD fielded basic science questions and provided simplified answers that helped educate the clinical investigators.

Following the scientific program, the group enjoyed some social time, drinking – of course - PORT. Over port wine and appetizers, investigators spoke with each other about their mutual interests and the possibility of future collaboration.

We are only beginning to develop PORTs on this campus. The next PORT seminar will be **Wednesday, October 24** with a presentation by the Oncology Institute. Please be sure to join us – save the date now. As this program grows, we are hoping to expand translational research on this campus so that it looks like the following diagram in the future.



Please plan on being part of the research solution. Who knows, the patient you may help may be you or a family member! Even if you don't know how to do research or where you would fit into this plan, join the PORT group for some intellectually stimulating interaction! We hope you will join us in October.





Jamie Caldwell,
Director of the Office of Research Services (ORS)

With the latest round of electronic submissions now past us, I wanted to take this opportunity to thank the entire Faculty who submitted proposals for review and approval, and the Grant Administrators and Staff who assisted in the process. During the April, May, June and July deadlines, the Office of Research Services (ORS) processed 43 grants for a total requested cost of \$35,629,055.

Progress on NIH's FY 2008 Budget

We are one more step along the road from the President's Budget Request to a final FY 2008 budget. The House subcommittee that covers NIH has finished its markup for the President's Budget:

- O NIH's budget would increase to \$29.4 billion, \$1 billion more than the FY 2008 President's Budget Request.
- O NIH's Office of the Director would get \$597 million of the \$1 billion, including \$374 million for the NIH Common Fund.
- O The other \$403 million would give most institutes, including NIAID, 1.5 percent more than in FY 2007.

Source: United States House of Representatives "Committee on Appropriations"

eRA Update

The NIH has posted a PowerPoint slide presentation "Overview of Electronic Submissions" on the Office of Extramural Research (OER) Website (http://era.nih.gov/ElectronicReceipt/files/15_Minute_Electronic_Submission_Overview.ppt). This is short but excellent overview of the process.

Grants.gov is moving from Pure Edge Viewer to Adobe eforms sometime this fall. According to Grants.gov, Adobe Reader is the only software required. It was previously reported that all desktops would require Adobe Acrobat to create the forms necessary for electronic submission.

NIH Institute Feature

With this article and in future newsletters we will briefly summarize the mission and goals of an NIH Institute. This article features the [National Institute of Allergy and Infectious Diseases \(NIAID\)](#).

The National Institute of Allergy and Infectious Diseases (NIAID) conducts and supports basic and applied research to better understand, treat, and ultimately prevent infectious, immunologic, and allergic diseases. For more than 50 years, NIAID research has led to new therapies, vaccines, diagnostic tests, and other technologies that have improved the health of millions of people in the United States and around the world. NIAID's paylines that were established for fiscal year 2007 are reported at: http://www.niaid.nih.gov/ncn/budget/default_budget.htm#payline

Niehoff School of Nursing

I am pleased to announce the appointment of Janet Campbell as Grants Administrator for the Niehoff School of Nursing. Ms. Campbell will provide pre and post-award grants management support for the School of Nursing.

New Faculty Hires

As we welcome new Faculty to Loyola, I would like to remind departments to notify the Office of Research Services as soon as possible after the recruitment process is complete. If faculty will be transferring grants with them to Loyola, there is a "Change in Grantee Institution" process that takes a few weeks finalize. Advance notice would help us minimize the delay that researchers sometimes experience when transferring grants.

Proposal Submission Process

As a reminder, the Office of Research Services has a three to five day advance notice policy for submitting Grants for review and approval. We are asking everyone's assistance in adhering to this policy. In the past few months many proposals have been submitted at the last minute.



Employee Highlights

Donna Bobrowicz, J.D., M.B.A., Technology Transfer



One of the newer functions within ORS is that of Technology Transfer (TT). Although TT has been done on an ad hoc basis over the years, the leadership at SSOM decided in 2004 that it was time to begin an official TT office. Approximately two years ago, Donna Bobrowicz joined our staff on a part-time basis to develop this office. Her academic background is that of a patent attorney with a JD from Chicago Kent-IIT Law School and an MBA from Loyola University Chicago. She also has an undergraduate degree in Medical Technology from UIC.

Donna's career has primarily been in the corporate world, working initially in the diagnostics divisions of Abbott Laboratories and Akzo Nobel where her responsibilities included both patent work and licensing of new technologies. She was also involved with the licensing of cutting edge technologies in agriculture while working at Pioneer Hi-Bred. In addition, she has experience in plastics, organic chemistry, and surfactants. University clients have included Cornell and UIC.

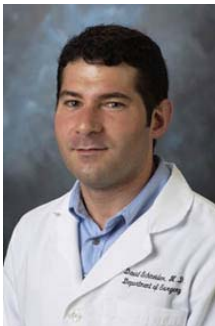
Currently, the TT Office in ORS is in the process of explaining to individual inventors the ways that intellectual property can be protected, and deciding when patent protection or other protection of new inventions should be sought. Some of the services offered include: writing and filing patent applications; and providing and negotiating confidentiality agreements, joint research and development agreements, and license agreements.

In addition, Donna is the point person for getting Loyola involved in organizations that are introducing local medical schools to local (and not-so-local) corporations, in order to get collaborations started among them. The Midwest has not excelled in the development of biotech start-up companies despite the amount of both university talent and industry needs in the region. These local organizations are attempting to facilitate development in that area.

If you have any questions regarding potential new inventions, old inventions, or anything of a similar nature, please feel free to stop by or give Donna a call.



David Schneider, M.D., Resident/Fellow, Department of Surgery and Burn and Shock Trauma Institute.



David Schneider grew up in Arlington Heights and graduated from Washington University in St. Louis in 2000 with a major in biology and Spanish. At Washington University he was elected to Phi Beta Kappa. After receiving his B.A., Dave returned to the Chicago area to attend Loyola's own Stritch School of Medicine, and after graduating from Stritch in 2004, he decided to remain at LUMC for his general surgery residency. In the summer of 2004, Dave began a two year research fellowship in the Burn & Shock Trauma Institute working in the laboratory of Dr. Douglas Faunce. At that time, Dr. Faunce was investigating the role of natural killer T (NKT) cells in the immune responses after burn injury. Schneider's project, however, has delineated a novel role for NKT cells in cutaneous wound healing. Faunce had discovered that in knockout mice lacking NKT cells, wound closure was significantly accelerated. In addition, NKT cells appear to regulate the inflammatory response typical of early wound repair, and Schneider has been characterizing this response. Importantly, Faunce and Schneider have also demonstrated the same alterations in the inflammatory response and acceleration in wound closure by preventing the activation of NKT cells using a monoclonal antibody.

Schneider hopes that this approach taken in mouse models can translate into human therapy for cases where wound healing is either delayed or impaired.

Schneider is the lead author of a review entitled "Innate lymphocyte subsets and their immunoregulatory roles in burn injury and sepsis" appearing in last month's *Journal of Burn Care & Research*. He is also the author or co-author on two additional manuscripts now in preparation including one detailing how NKT cells regulate the inflammatory infiltrates of the early wound. Recently, Schneider presented his data at the 30th annual conference of the SHOCK Society and won first prize in the American College of Surgeon's Chicago Committee on Trauma Resident Paper Competition for his talk entitled "NKT Cells Regulate the Inflammatory Phase of Wound Healing."



Research News

OFFICE OF RESEARCH SERVICES NEWSLETTER

SUMMER 2007

Toni Pak, Ph.D., Assistant Professor, Department of Cell Biology, Neurobiology & Anatomy


Toni Pak, Ph.D. recently joined the faculty in the Department of Cell Biology, Neurobiology, and Anatomy. The central theme of her research falls under the broad category of neuroendocrinology with a specific focus on the molecular signaling properties of hormone receptors and the process of puberty. Puberty is physiologically defined as the process of becoming a reproductively competent individual and is arguably the most important postnatal developmental event in the lifespan of an organism. Although historically most neuroscientists believed that the brain was fully developed at birth, we now know that new neurons are “born” and old neurons continue to be “remodeled” throughout life. Her laboratory is interested in elucidating the molecular basis of hormone receptor-mediated gene expression, which is central to understanding how hormones modulate a variety of physiological processes including social behaviors, sexual maturation, and reproductive function.

Dr. Pak’s graduate studies were conducted at the University of Colorado in Boulder under the direction of Drs. Pei-San Tsai and Robert Lynch. Her dissertation focused on the role of estrogen in males and demonstrated that estrogen is not just a female hormone, but is critical for the normal progression of puberty in males. These studies helped form the basis for her interest in estrogen receptors, and she went on to do a post-doctoral fellowship with Dr. Robert J. Handa at Colorado State University. At that time, Dr. Handa had recently discovered the existence of several estrogen receptor splice variants in the brain, suggesting that the mechanisms for hormonal regulation of target genes are much more complex than previously thought. Dr. Pak was particularly interested in studying how these splice variants changed over the course of puberty and whether they had different biological functions. Using these splice variants she was able to discern novel downstream signaling pathways of estrogen receptor regulation for several target genes that are critical to the developmental process of sexual maturation.

Besides determining the molecular basis of hormone receptor-mediated gene expression, Dr. Pak is also interested in the potential clinical applications of aberrant estrogen receptor signaling patterns. For example, adolescence is a time when many psychiatric disorders first emerge, such as anxiety and mood disorders, eating disorders, substance abuse, and schizophrenia. An obvious physiological change during puberty is the steady rise in circulating gonadal steroid hormones as a result of testicular and ovarian maturation. While hormones have been implicated as playing a role in adolescent-onset psychiatric disorders, the specific molecular targets and steroid receptor signaling pathways remain unclear. Current research in her laboratory is aimed at determining how gene expression, gonadal steroid hormones and external factors (such as alcohol and drug use) interact to influence brain development during the process of puberty. Specifically, her lab is addressing two interrelated questions: 1) how does nuclear steroid hormone receptor signaling in the brain change over the course of sexual maturation and how might these signaling changes contribute to adolescent-onset psychiatric disorders; and 2) how does binge alcohol consumption during puberty affect specific neurochemical markers in the brain associated with the stress response. Toni grew up in Boulder, Colorado and enjoys all kinds of outdoor activities, especially biking, hiking, skiing, and camping. For her first home in Chicago she chose to live near Lake Michigan and has had fun exploring the city and hanging out at the beach. She is excited to be at Loyola and looks forward to many opportunities for collaboration.


Mary Pat Fitzgerald, M.D., Associate Professor, Department of Obstetrics & Gynecology


Mary Pat FitzGerald MD is a clinical and translational researcher on faculty in the Departments of Obstetrics/Gynecology and Urology. Her clinical practice is in Female Pelvic Medicine and Reconstructive Surgery, a relatively new clinical subspecialty that combines clinical aspects of Gynecology and Female Urology.

The themes of her research are driven by clinically challenging pelvic disorders that currently lack effective treatments, including research into clinical algorithms for evaluation and treatment of troublesome night-time urination (nocturia) and also into the mechanisms by which injuries to the body wall (including skin, muscle and nerve) can bring about alterations in the sensitivity of internal organs such as bladder and bowel.

Along with other members of her Division, she also collaborates with Urogynecologists at other centers of excellence in the conduct of innovative randomized clinical trials that are funded by the NIH through three collaborative research networks. Those therapeutic trials include randomized trials of surgical treatments for urinary incontinence and pelvic organ prolapse, and nonsurgical treatments of painful bladder disorders.

Because of her experience with design and conduct of clinical and translational research studies, Dr. FitzGerald is one of very few specialists in her field who are funded by the NIH to act as physician-scientist mentors for junior faculty. In that role, she supports the work of several residents, fellows and other junior faculty who become involved in the design, execution and reporting of studies that encompass a wide range of topics.

Dr. FitzGerald’s primary medical training was undertaken in her native Ireland, with residency training in Obstetrics and Gynecology at Medical College of Pennsylvania in Philadelphia and a Fellowship in Female Pelvic Medicine and Reconstructive Surgery at Rush-Presbyterian-St. Luke’s Medical Center in Chicago. She joined the Loyola Faculty in 2000 as part of an innovative partnership between the Departments of Obstetrics/Gynecology and Urology. When not working, Dr. FitzGerald spends her time gardening, hiking and enjoying her life as a mother of three busy children.

Department and Institute Highlights

Neuroscience Institute (NSI)

Mission Statement and Goal

The mission of the NSI is to support basic science, translational, and clinical research and training aimed at the elucidation of fundamental mechanisms underlying neurological and mental disorders, with the goal of developing novel therapeutic strategies to enhance patient care. The goal of the NSI is to provide the intellectual and physical environment for campus-wide neuroscience research and education to flourish, with the long-term objective of establishing a Midwest Center of Excellence in Neuroscience.

Organization of the NSI

In 2006 Dr. Charles R. Schuster was recruited to become the Director of the NSI, and Dr. Wendy Kartje was appointed as the Associate Director. Under their leadership the NSI was reorganized into three research divisions and a Division of Neuroscience Education and Training.

The Division of Sensory Sciences and Disorders: This Division includes those faculty and programs on all campuses of Loyola who study sensory systems and patients with sensory diseases and disorders. This includes faculty at the Parmly Institute which supports research concerned with the comparative study of sensory systems including hearing, vision and the sense of balance; additional research addresses the special senses of fish that include the lateral line system and electroreception. The Medical Center Campus has substantial clinical programs in the Departments of Ophthalmology, Otolaryngology, Neurological Surgery, Neurology, and Psychiatry and Behavioral Neuroscience that treat patients with sensory problems.

The Division of Neural Structure, Degeneration, and Repair: This Division encompasses fundamental research, as well as preclinical/translational studies of central nervous system (CNS) and peripheral nervous system (PNS) diseases and disorders. Research areas include cellular and molecular mechanisms underlying survival, regeneration and plasticity following CNS or PNS injury, spinal cord injury, stroke, peripheral nerve injury/neuropathies, Amyotrophic Lateral Sclerosis (ALS), Multiple Sclerosis (MS), and stress urinary incontinence. Pre-clinical/translational therapies currently being studied for clinical application include antibody-targeted treatment for stroke repair, steroid hormone treatment for neuroprotection after neuronal injury, adult stem cell and olfactory ensheathing cell transplantation for spinal cord injury and stroke, pharmacological methods paired with rehabilitation, neural stimulation for stress urinary incontinence and bladder control after spinal cord injury, and immunomodulation after neural injury. Basic science and translational research is being conducted on a range of neurodegenerative diseases including Alzheimer's disease, trinucleotide repeat diseases such as Huntington's Disease, Parkinson's Disease and other movement disorders such as Progressive Supranuclear Palsy, and HIV-1 dependent brain damage. Studies are also being done on mechanisms of CNS neurodegeneration associated with alcoholism and fetal alcohol syndrome.

The Division of Behavioral and Psychiatric Neuroscience: This Division encompasses a diverse group of basic and clinical scientists who share a strong interest in the neurobiological substrate of normal and abnormal behavior and related disease states. The basic scientists have active research in the areas of serotonergic, dopaminergic, steroid and opioid neurotransmission, the mechanisms underlying effective therapeutics for mood disorders and schizophrenia, and the impact of therapeutics for mood disorders in the immature brain. Through an understanding of the neural mechanisms underlying psychiatric disorders new targets for pharmacotherapeutic treatment of mood disorders, schizophrenia and other psychiatric disorders may be developed.

The Division of Neuroscience Education and Training: One of the unique features of the NSI is its interdepartmental Neuroscience Graduate Program that trains PhD, MD/PhD and MS students. There are currently 23 graduate students and 2 MD/PhD students enrolled in the program. This program has been in existence since 1986 and has trained over 39 neuroscientists, the majority of which are currently active academic neuroscience researchers. A weekly seminar series, highlighting current neuroscience research from outside speakers as well as presentations from each graduate student on research in progress, is held during the academic year. In addition, the Department of Cell Biology, Neurobiology & Anatomy, the Department of Pharmacology & Experimental Therapeutics and the Department of Physiology each train PhD, MD/PhD, and MS students in neuroscience and hold weekly seminars that often present neuroscience topics. At Loyola's Lake Shore campus the Interdisciplinary Neuroscience Minor (INM) Program trains undergraduates in the field of neuroscience and presents an annual Distinguished Speaker in Neuroscience Seminar. INM faculty are members of the departments of Biology, Psychology, Sociology, Anthropology and Philosophy, as well as the Parmly Institute. NSI faculty members are also active in the STAR program (Student Training in Approaches to Research), which provides research experience and mentoring for medical students during the summer. This summer there are seven STAR trainees working with NSI mentors.

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NSI Cont.

Neuroscience Institute Members

Faculty members of the NSI include Drs. Douglas Anderson, Jorge Asconapé, George Battaglia, José Biller, Richard Bowen, Linda Brubaker, Jasvinder Chawla, Michael Collins, Duarte DeFreitas, Lydia DonCarlos, Raymond Dye, Jawed Fareed, Richard Fay, Morris Fisher, MaryPat Fitzgerald, Gregory Gruener, Sudha Gupta, Angelos Halaris, S. Duke Han, Linda Janusek, Judith Jennrich, Chris-Ellyn Johanson, Kathryn Jones, Wendy Kartje, Kimberly Kenton, Michael Ko, Lukasz Konopka, John Lee, Louis Lucas, Micheal Macken, Mary Manteuffel, Samuel Marzo, Herbert Mathews, Susan McGuire, John McNulty, Michael Merchut, Elizabeth Mueller, Edward Neafsey, John New, Russell Nockels, Thomas Origitano, Toni Pak, Youngsook Park, Susan Penckofer, Jay Perlman, Erika Piedras-Renteria, Vikram Prabhu, Margaret Primeau, Murali Rao, William Rochlin, Michael Schneck, Charles Schuster, Kari Scrogin, Stanley Sheft, William Schofner, George Siegel, William Simmons, James Stankiewicz, Evan Stubbs, Anne Sutter, J.D. Trout, James Walter, Charles Webber, Fletcher White, and Robert Wurster.

The productivity of the faculty and student researchers in the NSI is demonstrated by the more than 100 papers published in peer reviewed journals in 2006-2007. In addition, NSI faculty generated over \$11,000,000 in NIH funding and over \$5,000,000 in funding from the VA. Further, basic research has led to the development and human testing of new therapeutic interventions for Alzheimers Disease, stroke, facial nerve and spinal cord injury.

Neuroscience Day May 11, 2007

On May 11th the NSI sponsored Neuroscience Day at LUMC. The purpose of this event was to bring together basic neuroscience investigators from all of the Loyola campuses and clinicians. Neuroscientists from all Departments and Institutes within the Loyola and Hines community took part in the occasion. Translational research was the major theme in the morning session. This was followed by a clinical presentation on the diagnosis and treatment of Pseudotumor Cerebri by Dr. Paul Brazis of the Mayo Clinic. In the afternoon over 50 posters were presented by faculty and trainees. The poster session was very well attended, and the discussion of the work presented was very lively. The formal session ended with a presentation from Prince Philip C. Njemanze, MD of the Chidicon Medical Center, Imo State, Nigeria. It is our intention to build a formal relationship with Prince Njemanze for the exchange of students and collaborative research. The day ended with a reception.

In a survey of Neuroscience Day attendees, 100% of the respondents stated that they had learned about areas of neuroscience research being conducted at Loyola/Hines that they had not been aware of previously. Further, 86% reported that they had met basic or clinical neuroscientists whom they had not known previously. Finally, 47% reported that they had met people who they are planning to contact for possible research collaboration. Since the goal of this day was to bring greater cohesiveness and collaboration among neuroscientists, we judge the day to have been successful and intend to have a Neuroscience Day every year.



Department and Institute Highlights

Marcella Niehoff School of Nursing

The Marcella Niehoff School of Nursing, founded in 1935, was the first baccalaureate program in Illinois and boasts more than 5,000 alumni. Our School provides an active and wide-ranging research environment focusing on three main topics:

- Acute and Chronic Disease Management and Health Promotion
- Mind, Body and Spiritual Dimensions of Health and Illness
- Health Systems Management

Our research program is supported by a number of external funding agencies, including the National Cancer Institute, the National Institute of Nursing Research, and the American Association of Critical Care Nurses in addition to internal funding from the Palmer Endowment and the Loyola University Chicago Summer Research Stipend. Information regarding our Faculty and Staff is available at: http://www.luc.edu/nursing/about_faculty.shtml.

Studies directly related to acute and chronic disease management and health promotion are currently being conducted by the following faculty: Dr. Holli DeVon is conducting a pilot randomized controlled trial of an intervention to improve knowledge and outcomes in patients at risk for acute coronary syndromes. Dr. Gloria Jacobson, a Co-PI with Dr. Sue Riesch, (PI), University of Wisconsin-Madison, was awarded an NINR RO1 grant to conduct a trial of communication techniques to reduce health risk behaviors in children. Dr. Joanne Kouba is researching "The Nutrition Revolution" at Proviso East High School, the goal being to study the health of students and their families through examination of dietary patterns. Dr. Linda Paskiewicz is conducting a study exploring "Contextual Understanding of Obese Women's Weight Loss Experience Post Laparoscopic Gastric Banding." Specific aims are to understand how obese women manage their weight loss; identify contextual variables that facilitate or hinder weight loss; and identify adherence to the treatment plan in the early post op period. Dr. Sue Penckofer received a K-23 award from NINR, which provides funds for training as well as research support to develop and test an intervention for the treatment of dysphoric symptoms in women with Type 2 diabetes and its effect on self-management and overall quality of life. Dr. Karen Saban is completing a post-doc at Hines VA hospital and is comparing three health related quality of life measures in a multi-site, longitudinal study of veterans with end-stage renal disease receiving hemodialysis. Dr. Barbara Velsor-Friedrich has received an RO1 award from NINR for her study "Promoting Self-Care in Urban African-American Teens with Asthma." The objective of this study is to evaluate the effectiveness of the school-based program TEAM (Teen Educational Asthma Management) on the self-care and quality of life of urban African-American teens with asthma.

Four of our faculty members are currently working on projects related to the focus on Mind, Body and Spiritual Dimensions of Health and Illness. Dr. Linda Janusek is currently conducting a study, "Psychoneuroimmunology and Decision Making in Ductal Carcinoma in Situ" funded by NINR. This study uses a psychoneuroimmunology framework to investigate the dynamics of the psychological and immunological response of women newly diagnosed with DCIS. In addition, the role of treatment decision-making on the psychoneuroendocrine-immune response of these women is being evaluated. Dr. Lisa Burkhart conducted a study "Consensus Conference on Spiritual Leadership," funded by SC Ministry, which yielded a conceptual framework for spiritual leadership in Catholic health care. She developed an instrument called the "Spiritual Care Inventory". Dr. Burkhart is now testing the psychometric properties of the Spiritual Care Inventory. Dr. Nancy Hogan is directing a longitudinal study examining her theory of grief with family members of tissue and organ donors. Participants complete a battery of measures at 6, 13, and 25 months post loss. The MusculoSkeletal Tissue Foundation is sponsoring the study. Dr. Lee Schmidt is a co-investigator on the project. Many of the instruments used to measure variables were designed by the investigators including, the Hogan Grief Reaction Checklist, the Inventory of Social Support (Hogan & Schmidt), the Impact of Event Scale and the Continuing Bonds Inventory (Hogan and Schmidt).

In addition, there are current studies in Health Systems Management being conducted by Drs. Vicki Keough and Lee Schmidt. Dr. Keough, a Co-PI with Dr. Paula Tanabe (PI), Northwestern Memorial Hospital, have recently received funding from the National Council of State Boards of Nursing for the "Nurse Practitioner Credentialing and Practice Setting (NP CAPS)" study. The purpose of the study is to determine if nurse practitioners (NPs) are actually practicing in the area for which they are certified. The ultimate goal of this study is to help ensure safe care of patients, promote the most efficient use of NPs and maximize their ability to function in their role as a NP. Dr. Schmidt is conducting a grounded theory study of "Registered Nurses' Watching over Patients", which will serve as preliminary data for a planned grant submission to AHRQ. He is also collaborating on a study with the Florida Organization of Nurse Executives examining the shift level work environment for Registered Nurses.

Master's and PhD students in the School of Nursing are receiving stipends through faculty NIH grants and through funding from The Arthur Foundation. The Arthur Foundation has dedicated significant funds to increase the number of teacher scholars. The graduate nursing program officially moved to the Maywood campus in July of 2005. The School of Nursing views this as an opportunity to expand their interdisciplinary collaborations in keeping with the goals of NIH to meld the dynamic processes of human biology and behavior within health research to enhance the pace of scientific discovery.



Research Activity at LUMC

Research Funding—New Awards, since June 2007

- Shankar, R., Department of Surgery, Conjugon, Antibacterial Therapy for Burn Wound Infections Through Novel Bioengineered Bacterial Conjugation., 1/1/2007
- Mueller, E., Department of Urology, Society of Urology Chairpersons and Program Directors, Urodynamics for Urology Residents, 1/1/2007
- Jones, K., Department of Cell Biology, Neurobiology & Anatomy, Les Turner Foundation, Laser Microdissection to Explore the Inherent Regenerative Properties of ALS Motoneurons and Their Microenvironment Following Peripheral Nerve Injury, 1/1/2007
- Marchese, A., Department of Pharmacology, American Heart Association, The E3 Ubiquitin Ligase AIP4 Regulates the Chemokine Receptor CXCR4, 1/1/2007
- Robia, S., Department of Physiology, NIH K01, Novel Physical Methods for Determining Membrane Protein Dynamics and Kinetics, 2/1/2007
- Marchese, A., Department of Pharmacology, NIH R01, Regulation of the Chemokine Receptor CXCR4 by Ubiquitin, 2/1/2007
- Ludwig, L., Library, NIH, Library of Medicine Agreement, 3/1/2007
- Knight, K., Department of Microbiology and Immunology, NIH R01, Maintaining B Cell Immunity with Aged B Lymphocytes, 3/1/2007
- Cichon, M., Department of Surgery, bioMerieux, Clinical Evaluation of the VIDAS NT-proBNP Assay, 3/1/2007
- Fitzgerald, M., Department of Obstetrics & Gynecology, NIH K24, Nocturia and Chronic Medical Illness, 4/1/2007
- El Shamy, W., Department of Pharmacology, Schweppe Foundation, Analysis of the Role of Geminin in Cellular Aneuploidy & Breast Cancer Progression, 4/1/2007
- Kovacs, E., Department of Surgery, NIH F30, PreDoc Fellowship for Vanessa Nomellini, 4/1/2007
- Napier, C., Department of Pharmacology, NIH F31, PreDoc Fellowship for Robin Voigt, 4/1/1007
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