



NEW JERSEY MEDICAL SCHOOL ORSP RESEARCH NEWSLETTER

SPRING/SUMMER 2011

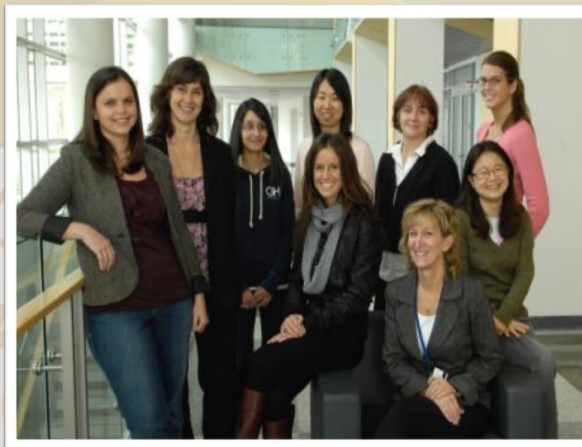
VOLUME 15, ISSUE 15

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FEATURED FACULTY TERESA L. WOOD, PH.D., PROFESSOR DEPARTMENT OF NEUROLOGY & NEUROSCIENCES

Dr. Teresa Wood is a Professor and Vice-Chair for Research in the Department of Neurology and Neuroscience at the New Jersey Medical School. She holds the Rena Warshow Endowed Chair in Multiple Sclerosis. Dr. Wood is a graduate of Carleton College, Northfield, Minnesota. She completed her Ph.D. in Molecular Neurobiology at UCLA, and completed post-doctoral work at the State University of New York (Stony Brook), in the Department of Neurobiology and Behavior and at Columbia University, Department of Anatomy and Cell Biology. Her academic career includes 12 years on the faculty of the Pennsylvania State University College of Medicine in Hershey, PA. Dr. Wood joined the New Jersey Medical School faculty in 2005. Her research has benefited from more than fifteen years of continuous funding from the NIH and, more recently, from the Department of Defense and the National Multiple Sclerosis Society.



Dr. Wood's lab focuses on understanding mechanisms that promote normal development including proliferation, differentiation and survival of stem/progenitor and mature cells as well as how these processes are disrupted in pathological states. The two cell lineages we study are the oligodendrocyte lineage that gives rise to myelin producing cells in the CNS and the mammary/breast epithelial cell lineage. Our studies in the CNS have elucidated signaling path-

ways promoting proliferation, survival and differentiation of oligodendroglia, both in normal development and after injury or in demyelinating diseases such as Multiple Sclerosis. This work includes our findings published in the *Journal of Neuroscience* that the mTOR pathway regulates oligodendrocyte differentiation and myelination. Funding for this work from the National MS Society has allowed us to further define how the mTOR pathway regulates developmental myelination as well as remyelination following a demyelinating injury. We also have long-standing NIH funding to study the insulin-like growth factors and receptors in mammary/breast epithelial cell proliferation and differentiation. Our recent studies have focused on how IGF and insulin receptors function in regulating stem/progenitor cells and lineage specification in mammary epithelium and how these receptors interact with self-renewal and oncogenic pathways in promoting breast tumors.

**NJMS FEATURED FACULTY
VIJI SANTHAKUMAR, MD, PH.D.,
ASSISTANT PROFESSOR
NEUROLOGY & NEUROSCIENCES**



Viji Santhakumar developed a deep interest in understanding brain function at the level of neurons and networks during medical school and her subsequent stint as a practicing physician. She joined the University of California, Irvine in 1998 to pursue basic-science research on hippocampal plasticity after brain injury. Her doctoral studies established the role of concussive brain injury in decreasing seizure thresholds and led to the discovery of key synaptic and cellular processes underlying post-traumatic epilepsy. Her physiological studies resulted in publications in leading journals including the *Journal of Neuroscience* and *Annals of Neurology* (published with editorial focus). Realizing the need for an integrated approach, Dr. Santhakumar exploited computational modeling techniques and developed biophysically-realistic dentate network simulations to gain mechanistic insights into limbic epileptogenesis. Her simulations, a benchmark for data-driven network modeling in the NEURON tool, are currently adopted by several groups. Her novel approach, using graph-theory and simulations, identified the critical role of structural reorganizations in seizure activity and was highlighted at the Presidential Symposium of the American Epilepsy Society. Following successive postdoctoral studies at UCLA where she identified the contribution of tonic inhibition to cerebellar and striatal function, Dr. Santhakumar was recruited as an Assistant Professor to NJMS in October 2008 and holds joint appointments in the Departments of Neurology & Neurosciences, and Pharmacology & Physiology.

Dr. Santhakumar's lab studies inhibitory plasticity in epilepsy. Brain injury is a major area of research in her lab – her team has discovered that inhibitory dysfunction in a rare and novel neuron may result in early post-injury hippocampal hyperexcitability. Currently, her lab is examining the contribution of synaptic plasticity and neuro-immune responses to interneuronal pathology and post-traumatic epilepsy. In parallel, her lab is investigating the differential effect of slow, concussive versus rapid, blast-like brain injury on cellular damage and neurological outcome. A second major area of interest is in understanding the mechanisms and consequences of interneuronal diversity and communication in epilepsy. Dr. Santhakumar's group has identified the presence, and seizure-induced enhancement, of extrasynaptic GABA currents in inhibitory neurons critical for feedback regulation of dentate excitability. Her lab is using physiological and computational approaches to evaluate how plasticity of synaptic, extrasynaptic and electrical interactions among interneurons impact hippocampal function in epilepsy. With support from the New Jersey Commission for Brain Injury Research, Epilepsy Foundation and CURE Foundation, Dr. Santhakumar's lab continues to research the fundamental mechanisms underlying development of epilepsy and co-morbidities such as cognitive and memory dysfunction.

**REZA RAZAVI, PH.D.
DIRECTOR OF NEW VENTURES
AND STRATEGIC INITIATIVES**



Reza Razavi, PhD, has joined Foundation Venture Capital Group (FVCG), LLC, as the Director of New Ventures and Strategic Initiatives. Dr. Razavi will work with Vince Smeraglia, Director at the Office of Technology Transfer and Business Development at UMDNJ, to identify innovative technologies at the University that are viable candidates to move toward commercialization. He will also provide support for existing Foundation Venture Capital Group investments. Once FVCG makes a commitment to invest in a start-up with innovative, marketable and patentable Intellectual Property (IP), it will provide seed capital, business support and guidance to assist in achieving critical milestones on the road to commercial success. It will also assist the newly formed company to develop and secure other funds.

Since inception of FVCG in 2006, it has made private equity investments in six companies started by faculty at UMDNJ. Interest in one of those companies was sold within 18 months for a substantial return on investment, benefiting Foundation Venture Capital Group, the company itself and the University.

Dr. Razavi was previously the Life Sciences Marketing and Business Development Manager at the Rutgers Office of Technology Commercialization and a Licensing Consultant in the Office of Patent and Licensing at UMDNJ. As a Business Development Professional, he has experience in the assessment, marketing and licensing of biomedical innovations, negotiation of various agreements and marketing and management of IP. Dr. Razavi also has an extensive and diverse background as a scientist in cancer biology, drug discovery and gene targeting in the pharmaceutical industry (Novartis and Purdue Pharma) as well as academia (UMDNJ and CABM). He is an Adjunct Faculty Member at GSBS / NJMS, a member of the Licensing Executive Society (LES) and a member of UMDNJ's Institutional Review Board (IRB). Dr. Razavi received a PhD in Interdisciplinary Biomedical Sciences from GSBS/UMDNJ and performed research in the area of Translational Oncology, genetically engineered models and stem cells.

To find out more about FVCG and its funding opportunities, contact Dr. Razavi at 908-315-5868 or rrazavi@njhf.org. To learn more about Foundation Venture Capital Group visit www.foundationventure.com.

**PATRICIA DALTON, ESQ.
DIRECTOR OF RESEARCH POLICY FOR NJMS**



Pat Dalton has recently joined the New Jersey Medical School - Office of Research and Sponsored Programs as the Director of Research Policy for the School. In taking on this newly created position, Pat will work with Dr. Bill Gause, Sr. Associate Dean for Research and Dr. Debi Lazzarino, Assistant Dean for Research and Director of ORSP, as well as the Clinical Research Unit and the Office of Clinical Research Administration. Pat will focus on promoting research activities at NJMS, including developing standard agreements for both clinical and basic research, supported by industry or government. Also, Pat will implement new training programs, guidance and procedures to enhance interactions between NJMS and industry, including pharmaceutical, device and biotech companies. Pat has previously held university positions in Legal Management and the President's Office, and has significant experience in industry research contracting and grant agreement related issues. She has served on the university's Institutional Review Board and Conflict of Interest Committee. Pat can be reached at 973-972-0488, or daltonpm@umdnj.edu.

The NJMS Office of Research is delighted to announce the receipt of two NIH "Shared Instrumentation Grant Awards" recently funded to Drs. David Lagunoff and Patricia Fitzgerald-Bocarsly.

CAPR STATE-OF-THE ART FACILITY!

Congratulations! Patricia Bocarsly-Fitzgerald, Ph.D. Professor, Pathology & Laboratory Medicine Director, Flow Cytometry Core Facility



Patricia Fitzgerald-Bocarsly, PhD, Professor in the Department of Pathology and Laboratory Medicine and Scientific Director of the NJMS Flow Cytometry and Immunology Core Laboratory has been awarded \$500,807 for the purchase of a state-of-the-art Becton Dickinson FACSria II cell sorter. Her submission included projects proposed by Drs. Azzam, Barnes, Fraidenraich, Gause, Iwatsubo, Kotenko, Leibovich, Levison, Mathews, Pinter, Raveche, Salgame, Tian, Tyagi, Whitehead, Wood and Yap all of NJ Medical School. This

instrument, which will be located in the Flow Cytometry and Immunology Core, has advanced safety features that will allow the sorting of human and pathogen-infected cells which was not possible with the outdated FACSVantage it is replacing. Other features include four-way sorting, the capability of detecting up to 14 parameters off of four lasers, a temperature control option for pre- and post-sort samples, and an automatic cell deposition unit for deposition of fixed numbers of cells into plates or onto slides. This faster and more efficient FACSria will support the needs of the researchers mentioned above and others working in diverse areas such as HIV and parasite immunology, innate immunity, lupus, and cancer cell, stem cell, radiation, and cardiovascular biology. For more details contact Dr. Bocarsly at: 973-972-5233 or bocarsly@umdnj.edu.



Center for Advanced Proteomics Research (CAPR) provides proteomics and mass spectrometry services to research laboratories at NJMS and surrounding universities and industry.

CAPR is located on the F Level in the Cancer Center Building. This facility is equipped with state-of-the-art proteomics instruments and bioinformatics systems, including an AB Sciex 4800 Plus MALDI TOF/TOF time-of-flight tandem mass spectrometer, an easy to use system for cost-effective identification of purified

proteins. CAPR has recently acquired another state-of-the-art Thermo Fisher Scientific LTQ Orbitrap Velos with ETD tandem mass spectrometer and proteome discover software package for highly sensitive and ultra-high resolution analysis of complex mixtures of proteins and their post-translational modifications. These systems are also very effective for simultaneous quantitative expression analysis of thousands of proteins and phosphopeptides from three to eight groups of cells and tissues, using either iTRAQ or SILAC approaches. The facility is directed by Dr. Hong Li (973-972-8396, liho2@umdnj.edu). For more details on the facility services, please visit our website at: <http://njms.umdnj.edu/proweb>.

Congratulations! David Lagunoff, MD Adjunct Professor, Surgery Director, Microscopic Imaging Core



David Lagunoff, MD, Adjunct Professor in the Department of Surgery and Director of the Microscopic Imaging Core, was awarded \$475,138 for the purchase of a Nikon A1SiR live cell imaging confocal microscope with spectral detector and resonant scanner. The Nikon A1SiR provides critical new capabilities for imaging fluorescent proteins and labeled antibodies in both dynamic and static systems. The A1Rsi allows assessment of the interaction of molecules with

one another and with cell organelles. Utilizing multiple lasers and high resolution fluorescence emission spectra, it will enhance localization of fluorescent molecules in 3-dimensions, track fluorescent molecules over time in live cells, enable identification of specific fluorescent molecules in multi-labeled samples utilizing multiple lasers and high resolution fluorescence emission spectra. The microscope will enable rapid collection of fluorescent intensities following the application of stimuli or photoactivation using the resonant scanner. Critical to the success of the grant application were various proposals from Drs. Bocarsly, Duran, Gasper, Sadoshima, Salgame, Thomas, Whitehead, Wood and Yap and others for studies at the NJMS including HIV-AIDS, leukemia, tuberculosis, perinatal hypoxic brain injury, heart failure, alcoholic liver disease, gastrointestinal radiation injury, osteoporosis and toxoplasmosis. For more details contact Dr. Lagunoff at: 973-972-1511 or lagunoda@umdnj.edu.

Congratulations and thanks to Drs. Lagunoff and Fitzgerald-Bocarsly whose efforts have resulted in the addition of significant assets to two of the school's research cores and to Theresa Policastro who helped with the preparation and coordination of the submissions.

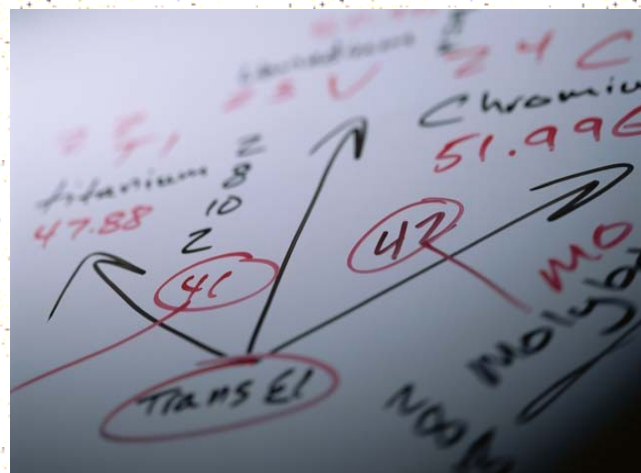
DO YOU HAVE HIGH THROUGHPUT DATA?

THE CENTER FOR GENOME INFORMATICS CAN HELP!



CONTACT BIN TIAN, PH.D., ASSISTANT PROFESSOR AND DIRECTOR AT 973-972-3615 OR VISIT THE WEBSITE AT:

<http://njms.umdnj.edu/research/resources/genomics/bioinformatics/services/index.cfm>



IRB: COMPLIANCE STEPS FOR EMBRYONIC CELL RESEARCH

Research involving embryonic cell line requires a two step review process. Initially the Embryonic Stem Cell Research Oversight Committee (ESCRO) reviews all new research proposals that would involve human embryonic cell line work. As a second step, an IRB application should be submitted for review.

ESCRO: <http://cord.rutgers.edu/stemcellcourse/escroapplication.php>

IRB: <http://www.umdj.edu/irbnweb>

ORSP INTERNAL 12 DAY/3 DAY REVIEW & SUBMISSION POLICY

As a result of the NIH policy eliminating the two (2) day correction window, ORSP will strictly enforce our **12 Day/3 Day Review and Submission Policy**.

Deadlines for receipt of grant applications to the Office of Research and Sponsored Programs (ORSP) for review and submission are:

- I. **Twelve (12) business days prior to the grant deadline:** ORSP must receive all budgets and administrative pages for review.

NOTE: Clinical Research Grants that involve the use of human subjects must also be reviewed by the Office of Clinical Research Administration (OCRA). Understand that review of clinical research grant budgets and determination of study feasibility (including availability of required hospital and medical school resources) requires a significantly longer period of time for review than grants that do not involve human subjects. The 12 day advance notice is absolutely required in order to ensure review and sign off on time for submission. Clinical Research Grants submitted to the office after the 12 day advance deadline may not be reviewed.

- II. **Three (3) business days before a grant deadline:** ORSP must receive final version of the grant for submission.

NOTE: After the three day advance deadline, ORSP cannot guarantee review and successful submission. With the elimination of the correction window grants will need to be submitted prior to the deadline date in order to address any warnings or errors that may exist. There will be no opportunity to correct warnings or errors after the deadline. To ensure your grant is received by the sponsoring agency, please adhere to the above policy.

Thank you

ADOBE B2 PACKAGES: RELEASE DATE: JANUARY 7, 2012

Issued by:

National Institutes of Health (NIH), <http://www.nih.gov>
Agency for Healthcare Research and Quality (AHRQ), <http://www.ahrq.gov/>
Centers for Disease Control and Prevention (CDC), <http://www.cdc.gov/>
Food and Drug Administration (FDA), <http://www.fda.gov/>
National Institute for Occupational Safety and Health (NIOSH), <http://www.cdc.gov/niosh/>

Purpose:

The purpose of this guide notice is to alert applicants that NIH, AHRQ, CDC, FDA and NIOSH are phasing in use of updated electronic application forms packages.

The ADOBE-FORMS-B2 packages will be used with new funding opportunity announcements (FOAs) posted on/after July 22, 2011. In addition, NIH will reissue R01, R03, and R21 parent announcements with the new forms on July 22 and expire the current parent R01, R03, and R21 FOAs on January 8, 2012. **Applicants may use either the current parent FOAs with ADOBE-FORMS-B1 or the new parent FOAs with ADOBE-FORMS-B2 packages for deadlines on/before January 7, 2012, but NIH strongly encourages applicants to use ADOBE-FORMS-B2 whenever possible.** Applicants downloading forms from the current parent announcements will encounter a splash screen directing them to the new parent announcements once they are posted.

The new packages will be identified with a Competition ID of ADOBE-FORMS-B2 (the Competition ID field can be found when downloading the application package from Grants.gov and in the application header information on the downloaded form).

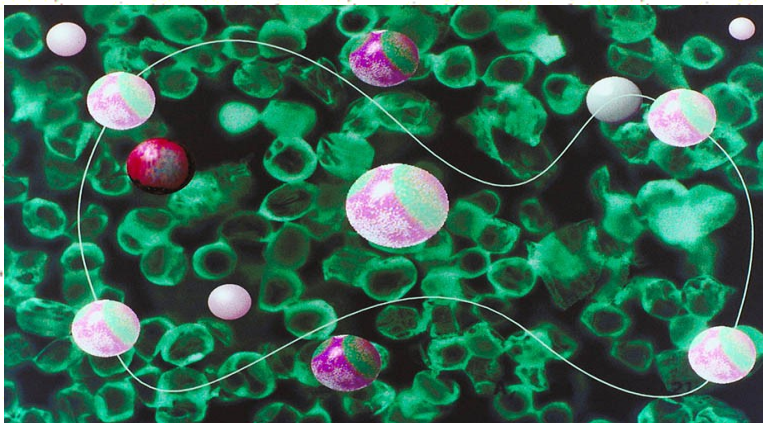
ADOBE-FORMS-B2 packages include the following form changes:

- New version of PHS 398 Modular Budget form. The new version resolves and issue causing intermittent rejections of application submissions at Grants.gov.
- New version of Budget Information for Construction Programs (SF-424C) form with fix for errors previously encountered by system-to-system users when optional data was not included in their submission(s).
- New R&R Subaward Budget Attachment(s) Form 5 YR 30 ATT, which replaces the current R&R Subaward attachment form. The prior form allowed up to 10 subaward attachments; the new form allows up to 30.

Please note that the incorporation of these forms does not result in any major changes to the SF 424 (R&R) Application Guide for NIH and other PHS agencies. All applicants should carefully read their FOA and the appropriate "B Series" Application Guide for program-specific instructions before completing their application.

For additional information, please contact the appropriate ORSP Grant Administration.

ARTICLE FROM THE NIH WEBSITE: <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-11-096.html>



INVESTIGATOR FINANCIAL DISCLOSURE FORMS

The University Policy states that an FDF must be completed for anyone listed as key personnel. FDF's must be completed for all applications including continuations.

Purpose:

"Risks inherent when researchers have financial or other personal interests in their research or training activities, and the need to avoid arrangements that might compromise, or seem to compromise, the intellectual principles, independence and responsibility to the public that underlie the ethical conduct of research"

Applicability:

"Applies to all University faculty, non-faculty employees, students and other individuals who, in the course of their association with the University (1) apply for or received funds for any research or training purpose, by grant or subgrant, or by contract or subcontract, or by cooperative agreement; or (2) wish to conduct unsponsored research"

The FDF must be signed by the following personnel:

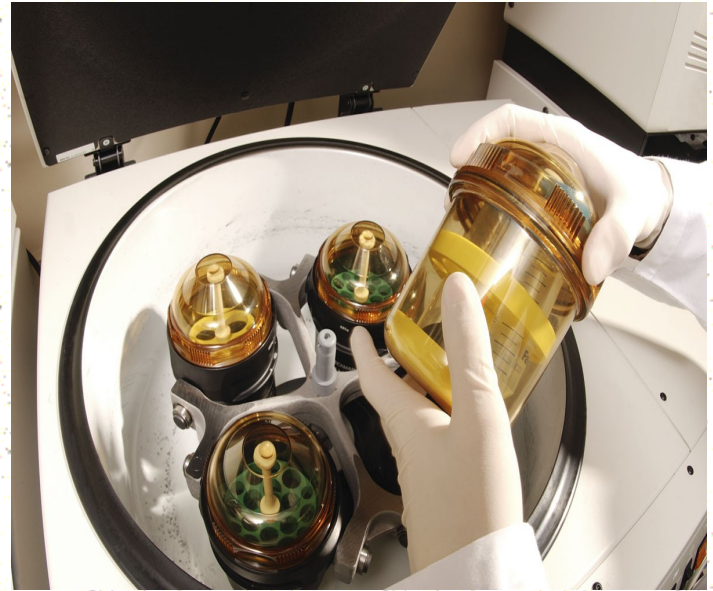
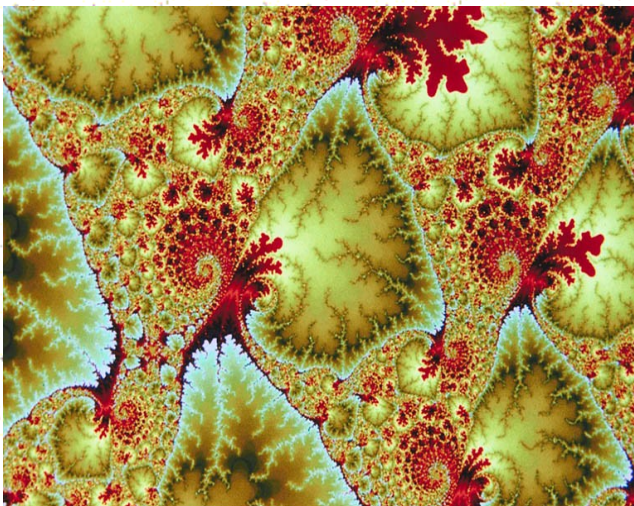
1. Department Chair
2. Principle Investigator
3. Key Personnel (and other University personnel who, in the course of their association with the University are or will be responsible for the design, conduct, administration, collaboration, analysis and/or reporting of either research or training activities funded or proposed for funding by any sponsor, or of unsponsored research or training activities.)

For the complete University Policy on Investigator Conflict of Interest, please use the following link to access the document: http://www.umdnj.edu/oppmweb/university_policies/research/index.htm. Please remember to review the current Conflict of Interest Policy #00-01-05-10:05

FDF's can be downloaded from our website at: http://njms.umdnj.edu/research/orsp/documents/FDF2_000.doc or you can pick up a copy from our office.

If you have any questions or need assistance, please contact the appropriate ORSP Grant Administrator or Ms. Letitia Dean, Assistant Director at 973-972-0283.

(excerpts from the University Policy, Subject: Research, Title: Investigator Conflict of Interest, Coding: 00-01-05-10:05)



The Responsibilities of the ORSP



Deborah A. Lazzarino, Ph.D.
Assistant Dean for Research Administration

The Office of Research & Sponsored Programs provides the following services:

Supports investigators at the New Jersey Medical School by pre-submission review of their applications for extramural funding.

Ensures that final documents submitted to Legal Management are complete and in compliance with the UMDNJ policies and guidelines

Keeps the NJMS faculty current with new policies and guidelines which could potentially impact their applications for funding support (e.g. creating and conducting training sessions for grants and contracts administration):

Serves as an interface between the NJMS faculty and offices supporting the research enterprise (e.g. IRB, BioSafety and Legal Management)

Administers research-related programs (e.g. Summer Student Research, NJMS Junior Faculty Mentoring and Internal Research Grants Programs).

RECENT PUBLICATIONS

Journal of Nuclear Medicine, published on March 18, 2011 as doi:10.2967/jnumed.110.083584; Changes in Lognormal Shape Parameter Guide Design of Patient-Specific Radiochemotherapy Cocktails; John M. Akudugu, Prasad V.S.V. Neti and Roger W. Howell; Division of Radiation of Research, Department of Radiology, UMDNJ-New Jersey School Cancer Center, Newark, NJ; The Journal of Nuclear Medicine-Vol. 52-No. 4-April 2011

**Office of Research & Sponsored Programs
2011 Poster Symposium**

**Participants:
Summer Student Research Program
Hispanic Center of Excellence
The North East Regional Alliance**



Thank you to all the NJMS Faculty Mentors who took time out of their busy schedules to work with the 1st and 2nd year medical students, research volunteers and interns over an eight week period. The results of your mentorship was demonstrated by the students, research volunteers and interns at our SSRP Poster Symposium held on Friday, August 5, 2011. We also like to thank the NJMS faculty who served as judges for the poster session.

Without your willingness to volunteer your time and expertise.....our program could not be successful!

CONGRATULATIONS TO ALL THE STUDENT PARTICIPANTS ON A JOB WELL DONE!



MEGAN MCCORMICK (left), WINNER OF THE SSRP POSTER COMPETITION
DEBORAH A. LAZZARINO, PH.D., (right) ASSISTANT DEAN FOR RESEARCH ADMINISTRATION



PADMINI SALGAME, PH.D. (RIGHT)
DEBORAH A. LAZZARINO, PH.D. (LEFT)



WILLIAM C. GAUSE, PH.D.
SENIOR ASSOCIATE DEAN FOR RESEARCH ADMINISTRATION



UMDNJ-NEW JERSEY MEDICAL SCHOOL

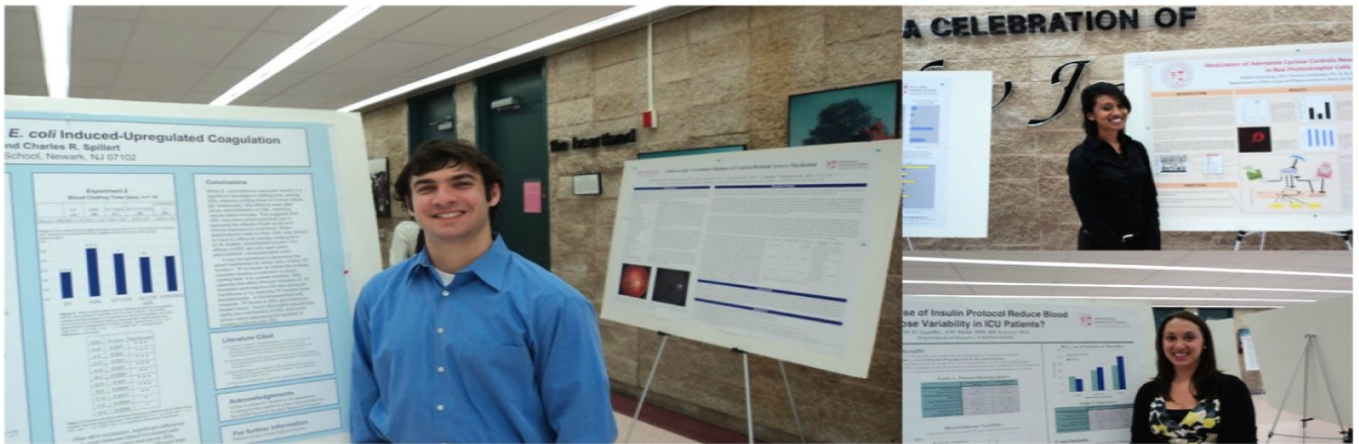
*THE SUMMER STUDENT RESEARCH PROGRAM & THE HISPANIC CENTER OF EXCELLENCE
& THE NORTH EAST REGIONAL ALLIANCE MEDPREP SCHOLARS PROGRAM*





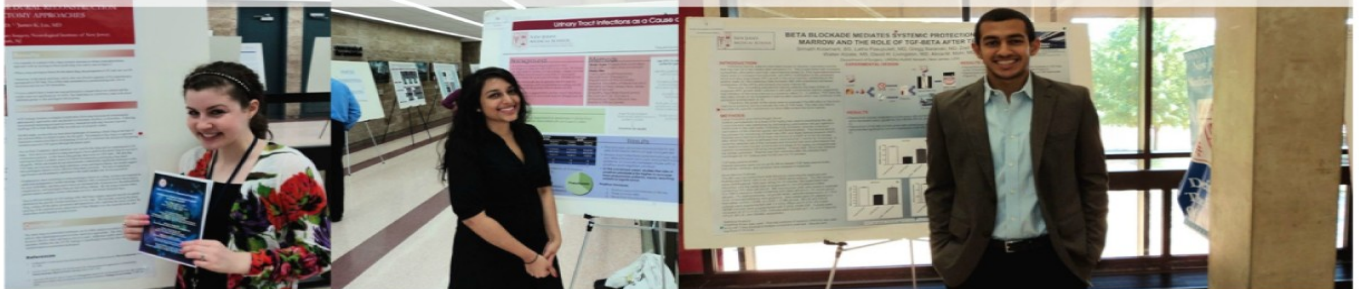
SSRP POSTER SYMPOSIUM

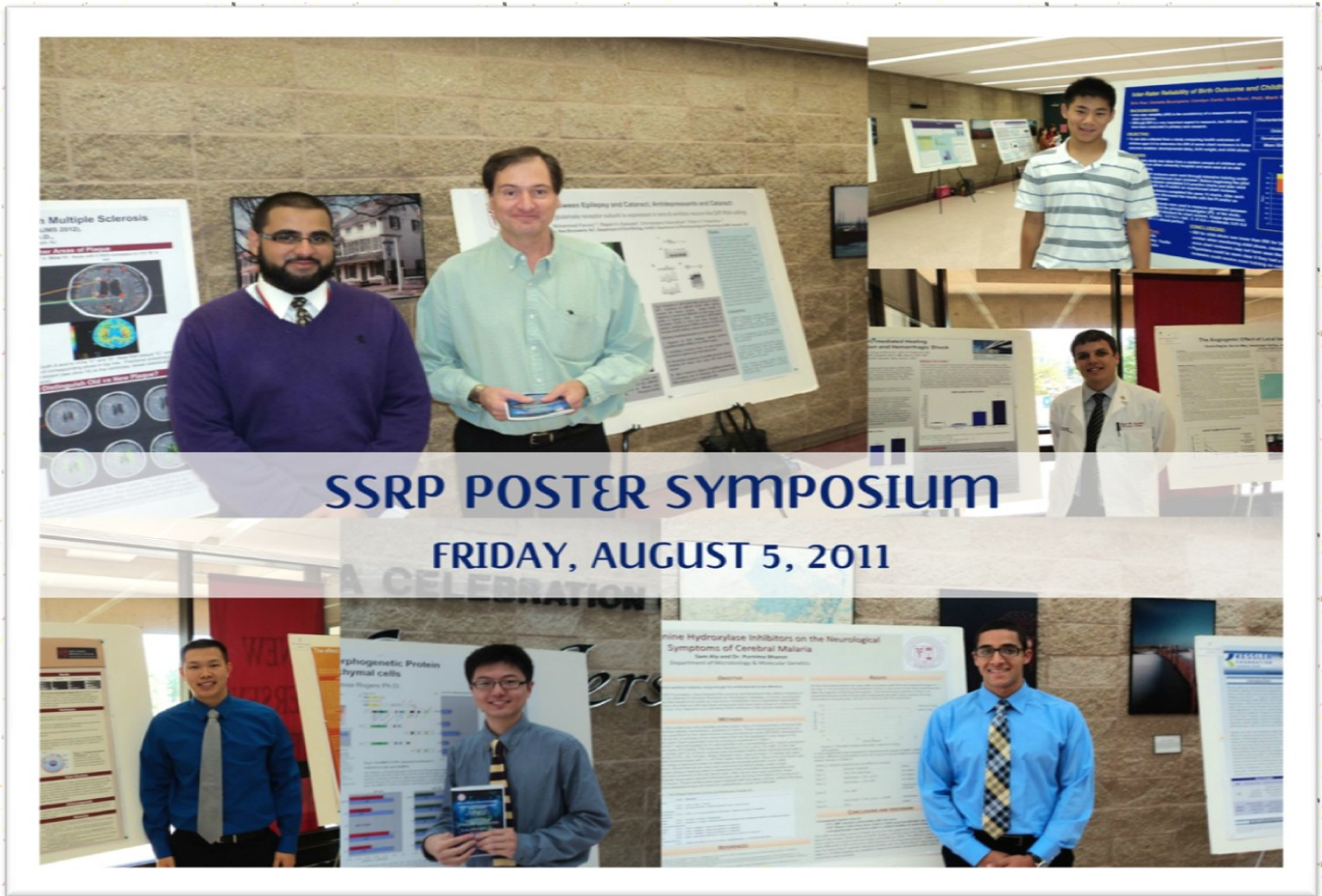
FRIDAY, AUGUST 5, 2011



SSRP POSTER SYMPOSIUM

FRIDAY, AUGUST 5, 2011





CONGRATULATIONS! NJMS GRANT AWARD RECIPIENTS
Awarded: February 1, 2011—July 31, 2011

<p>PI: Sylvia Christakos, Ph.D., Professor Mentee: Tanya Seth Department: Biochemistry & Molecular Biology Project Title: "Vitamin D: Mechanism of Action" Institution: Merck Sharp & Dohme Research Laboratories Duration of Award: July 1, 2011-June 30, 2014 Total Amount of Award: \$78,148</p>	<p>PI: Betsy Barnes, Ph.D., Assistant Professor Department: Biochemistry & Molecular Biology Project Title: "Automated Method for Pattern Recognition and End-Titer Determination of Autoantibodies by Imaging Flow Cytometry" Institution: Foundation of UMDNJ Total Amount of Award: \$25,000</p>
<p>PI: Pierre-Anotine Crassous, Ph.D., Post-doctoral Fellow PI: Annie Beuve, Ph.D., Associate Professor Department: Pharmacology & Physiology Project Title: "No Resistance in Angiotensin II Induced Hypertension: Cysteine Oxidation Role in Soluble Guanylyl cyclase Desensitization" Duration of Award: July 1, 2011-June 30, 2013 Total Amount of Award: \$96,000</p>	<p>PI: David Lagunoff, MD, Professor & Director Department: Histology & Confocal Core Facilities Project Title: "Live Cell Imaging Confocal Microscope with Spectral Detector and Resonant Scanner-Shared Instrumentation (S10)" Institution: National Center for Research Resources Duration of Award: April 1, 2011-March 31, 2012 Total Amount of Award: \$475,138</p>
<p>PI: Min Lu, Ph.D., Professor Department: PHRI Project Title: "Presentation of Structural Determinants of the 2F5 Neutralization Epitope" Institution: Allergy and Infectious Diseases Duration of Award: April 1, 2011-March 31, 2012 Total Amount of Award: \$293,713</p>	<p>PI: Christine Rohowsky-Kochan, Ph.D., Professor Department: Neurology & Neurosciences Project Title: "MicroRNA Expression Profiles in Multiple Sclerosis" Institution: National Multiple Sclerosis Society Duration of Award: May 1, 2011-April 30, 2012 Total Amount of Award: \$44,000</p>
<p>PI: Lillian Pliner, MD, Assistant Professor Department: Medicine Project Title: "A Randomized Controlled Study of YONDELIS (Trabectedin) or Dacarbazine for the Treatment of Advanced Liposarcoma or Leiomyosarcoma Previously Treated with an Anthracycline and Ifosfa" Institution: Johnson & Johnson Pharmaceuticals, Inc. Duration of Award: July 1, 2011-June 30, 2012 Total Amount of Award: \$196,268</p>	<p>PI: Pranela Rameshwar, Ph.D., Professor Department: Medicine Project Title: "Delivery of MiRNA to Breast Cancer Cells Through Exosomes Released from Bone Marrow Stroma and Mesenchymal Stem Cells" Institution: United States Department of Defense Duration of Award: May 1, 2011-April 30, 2012 Total Amount of Award: \$102,160</p>

CONGRATULATIONS! NJMS GRANT AWARD RECIPIENTS**Awarded: February 1, 2011—July 31, 2011**

<p>PI: Patricia Fitzgerald-Bocarsly, Ph.D., Professor Department: Pathology & Laboratory Medicine Project Title: "BD FACSARIA II for NJMS Flow Cytometry Core-Shared Instrumentation (\$10)" Institution: National Center for Research Resources Duration of Award: March 1, 2011-February 29, 2012 Total Amount of Award: \$500,807</p>	<p>PI: James Maher, MD, Assistant Professor Department: Medicine Project Title: "Class II/III Con" Institution: GlaxoSmithKline Duration of Award: April 1, 2011-March 13, 2012 Total Amount of Award: \$146,661</p>
<p>PI: Shumin Gao, Ph.D., Assistant Professor Department: Cell Biology & Molecular Medicine Project Title: "Hemodynamic Effects of Inotropic Drugs on Failing Rat Hearts: Comparison with Dobutamine" Institution: CV Dynamics, Inc. Duration of Award: March 1, 2011-February 28, 2012 Total Amount of Award: \$59,116</p>	<p>PI: Tibor Rohacs, MD, Ph.D., Assistant Professor Department: Pharmacology & Physiology Project Title: "Regulation of the Intestinal Ca²⁺ Channels TRPV6" Institution: National Institute of General Medical Sciences Duration of Award: April 1, 2011-March 31, 2015 Total Amount of Award: \$1,185,600</p>
<p>PI: Robert Johnson, MD, FAAP, NJMS-Dean & Professor Department: NJMS-Office of the Dean Project Title: "The START Program-Ryan White Part A Emergency Relief Grant Program" Institution: City of Newark Duration of Award: March 1, 2011-February 28, 2012 Total Amount of Award: \$86,764</p>	<p>PI: Arunshua Sinha, MPH, MD, Associate Professor Department: Preventive Medicine Project Title: "Observational Prospective Registry of the Efficacy, Safety and Adherence to Therapy of Interferon in Patients Chronically Infected with Hepatitis C" Institution: Duke Clinical Research Institute Duration of Award: April 1, 2011-March 31, 2013 Total Amount of Award: \$30,000</p>
<p>PI: Min Lu, Ph.D., Professor Department: PHRI Project Title: "The Role of Scavenger Receptor gp340 in Mucosal HIV 1 transmission and Inhibition" Institution: National Institute of Allergy & Infectious Diseases Duration of Award: March 1, 2011-February 29, 2016 Total Amount of Award: \$3,139,466</p>	<p>PI: Arunshua Sinha, MPH, MD, Associate Professor Department: Preventive Medicine Project Title: "Controlled Trial of the Safety and Efficacy of ANA 598 Administered with Pegylated Interferon and Ribavirin in Genotyp 1 Patients with Chronic Hepatitis C" Institution: Duke Clinical Research Institute Duration of Award: April 1, 2011-March 31, 2013 Total Amount of Award: \$184,000</p>
<p>PI: David Perlin, Ph.D., Executive Director & Professor Department: PHRI Project Title: "Properties of the Perfluoroalkylated Photosensitizers on Solid Surfaces with Developing Biofilms and with Planktonic Cells and Perform a Quantitative Assessment" Institution: New Jersey Institute of Technology Duration of Award: March 1, 2011-September 14, 2011 Total Amount of Award: \$44,000</p>	<p>PI: Natalia Shirokova, Ph.D., Associate Professor Department: Pharmacology & Physiology Project Title: "Cardiac Dystrophy Cellular Mechanisms" Institution: National Heart, Lung & Blood Institute Duration of Award: April 1, 2011-February 28, 2015 Total Amount of Award: \$1,518,000</p>
<p>PI: Barry Kreiswirth, Ph.D., Professor Department: PHRI Project Title: "The Molecular Basis of the Epidemic blaKPC Gene Klebsiella" Institution: National Institute of Allergy and Infectious Diseases Duration of Award: March 15, 2011-February 29, 2016 Total Amount of Award: \$3,094,233</p>	<p>PI: Katsunori Sugimoto, Ph.D., Associate Professor Department: Cell Biology & Molecular Medicine Project Title: "Surveillance and Maintenance of DNA Ends" Institution: National Cancer Center Duration of Award: April 1, 2011-March 31, 2016 Total Amount of Award: \$1,456,650</p>
<p>PI: Barry Kreiswirth, Ph.D., Professor Department: PHRI Project Title: "Services Agreement for DST Testing in Isolates, DNA Fingerprinting and Additional Tasks" Institution: Otsuka Pharmaceutical Development Duration of Award: March 15, 2011-March 14, 2012 Total Amount of Award: \$215,504</p>	<p>PI: Hua Zhu, Ph.D., Associate Professor Department: Microbiology & Molecular Genetics Project Title: "Efficacy Study of Anti HCMV Drug Candidate" INAx Institution: OMAGEM ApS Duration of Award: April 1, 2011-March 31, 2012 Total Amount of Award: \$32,915</p>
<p>PI: Lee Reichman, MD, MPH, Clinical Professor Department: Medicine Project Title: "On-line MDR-TB Training Course" Institution: World Medical Association Duration of Award: March 15, 2011-March 14, 2012 Total Amount of Award: \$116,221</p>	<p>PI: Zoia Muresan, Ph.D., Assistant Professor Department: Pharmacology & Physiology Project Title: "Reporter Mice for APP Processing Transport" Institution: National Institute on Aging Duration of Award: April 1, 2011-April 30, 2013 Total Amount of Award: \$351,780</p>
<p>PI: Raymond Birge, Ph.D., Professor Department: Biochemistry & Molecular Biology Project Title: "Non Canonical Metastatic Pathway for Crk Oncogene in Breast Cancer" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Jorge Contreras, Ph.D., Assistant Professor Department: Pharmacology & Physiology Project Title: "Regulation of the Connexin Channel that Produces Deafness and Skin Disorders" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>
<p>PI: Padmini Salgame, Ph.D., Professor Department: Medicine Project Title: "Memory Immunity in TB" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Anushua Sinha, Ph.D., Associate Professor Department: Preventive Medicine Project Title: "Continuing Medical Education Project on Antimicrobial Resistance: On-line CME Module for Pediatric Sinusitis and Pharyngitis" Institution: United States Department of Defense Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$45,968</p>

CONGRATULATIONS! NJMS GRANT AWARD RECIPIENTS
Awarded: February 1, 2011—July 31, 2011

<p>PI: Purnima Bhanot, Ph.D., Assistant Professor Department: Microbiology & Molecular Genetics Project Title: "Determining the Target of a Compound that Blocks Plasmodium Sporozoite" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Nikhat Parveen, Ph.D., Assistant Professor Department: Microbiology & Molecular Genetics Project Title: "A Novel Approach to Examine the Function of Two Treponema Pallidum Proteins and to Evaluate their Potential as Vaccine Candidates" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>
<p>PI: Vivian Bellofatto, Ph.D., Professor Department: Microbiology & Molecular Genetics Project Title: "Regulation of mRNA Turnover in Trypanosomes" Institution: Foundation of UMDNJ Duration of Award: June 1, 2011-May 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Andrew Pachner, MD, Professor Department: Neurology & Neurosciences Project Title: "Teriflunomide in a Model of MS" Institution: Sanofi-Aventis Duration of Award: July 1, 2011-June 30, 2012 Total Amount of Award: \$261,467</p>
<p>PI: Ronaldo Ferraris, Ph.D., Professor Department: Pharmacology & Physiology Project Title: "Nutrient-Nutrient Interactions in the Small Intestine" Institution: Foundation of UMDNJ Duration of Award: June 1, 2011-May 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Maria Gennaro, Ph.D., Professor Department: PHRI Project Title: "Sigma Factor Networks of M. Tuberculosis" Institution: National Institute of Allergy and Infectious Diseases Duration of Award: June 1, 2011-May 31, 2013 Total Amount of Award: \$424,240</p>
<p>PI: Diego Fraidenaich, Ph.D., Assistant Professor Department: Cell Biology & Molecular Medicine Project Title: "Induced Pluripotent Stem Cell Correction of Muscular Dystrophy Associated" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Carolyn Suzuki, Ph.D., Associate Professor Department: Biochemistry & Molecular Biology Project Title: "Roles of Mitochondrial Chaperones Mortalin and Tid1 in Protein Disaggregation and Degradation" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2011 Total Amount of Award: \$25,000</p>
<p>PI: Christopher Fritton, Ph.D., Assistant Professor Department: Orthopaedics Project Title: "Dissecting the Role of the IGF 1 Mechanical Loading Axis to Combat Osteoporosis" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Bin Tian, Ph.D., Associate Professor Department: Biochemistry & Molecular Biology Project Title: "Deep Sequencing RNA Ligands for Double Stranded RNA Binding Domain Proteins" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$35,000</p>
<p>PI: Sally Hodder, MD, Professor Department: Medicine Project Title: "Modeling HIV Transmission and Prevention in Newark, NJ" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$35,000</p>	<p>PI: Chaoyang Xue, Ph.D., Assistant Professor Department: PHRI Project Title: "Role of an SCF E3 Ubiquitin Ligase in Cryptococcus Virulence" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>
<p>PI: Sally Hodder, MD, Professor Department: Medicine Project Title: Ryan White Part A Emergency Relief Fund Institution: City of Newark-Department of Child and Family Well Being Duration of Award: March 1, 2011- February 29, 2012 Total Amount of Award: \$1,184,709</p>	<p>PI: Hongyu Qiu, Ph.D., Assistant Professor Department: Cell Biology & Molecular Medicine Project Title: "Evaluate Whether Bone Marrow cells Delivered Systematically After Ischemia Reperfusion Myocardial Infarction Can Home to be infarct Region in Mice" Institution: CV Dynamics, Inc. Duration of Award: February 15, 2011-June 30, 2011 Total Amount of Award: \$36,755</p>
<p>PI: Muriel Lambert, Ph.D., Professor Department: Pathology & Laboratory Medicine Project Title: "DNA Repair Defect in Fanconi Anemia Group A" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Theresa Chang, Ph.D. Assistant Professor Department: PHRI Project Title: "HIV-Human Peritoneal Macrophage Interactions" Institution: National Institute of Allergy and Infectious Diseases Duration of Award: March 1, 2011-February 28, 2013 Total Amount of Award: \$451,100</p>
<p>PI: Elizabeth Moran, Ph.D., Professor Department: Orthopaedics Project Title: "The Role of SWI SNF Related Complex Components in Osteoblast Differentiation" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Sylvia Christakos, Ph.D., Professor Department: Biochemistry & Molecular Biology Project Title: "Vitamin D and the Immune System" Institution: National Institute of Allergy and Infectious Diseases Duration of Award: March 1, 2011-February 28, 2013 Total Amount of Award: \$452,500</p>
<p>PI: Jayoung Pak, Ph.D., Assistant Professor Department: Neurology & Neurosciences Project Title: "Study of Safety and Efficacy of Eslicarbazepine Acetate Monotherapy in Subjects with Partial Epilepsy Bit Wekk Cibtrikked bt/syrrebt/abtueoukeotuc Drugs" Institution: Sepracor, Inc. Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$167,810</p>	<p>PI: Andrew De la Torre, MD, Associate Professor Department: Surgery Project Title: "A Phase II Randomized, open Label Study to Assess the Use of VT-122 in Weight Losing Patients with Advanced Hepatocellular Carcinoma" Institution: VICUS Therapeutics, LLC Duration of Award: March 1, 2011-February 28, 2012 Total Amount of Award: \$63,760</p>

CONGRATULATIONS! NJMS GRANT AWARD RECIPIENTS
Awarded: February 1, 2011—July 31, 2011

<p>PI: Hua Zhu, Ph.D., Associate Professor Department: Microbiology & Molecular Genetics Project Title: "A Severe Combined Immuno-Deficient (SCID) Hu Chimeric Mouse Model for Studying HCMV Viral Replication" Institution: Merck Sharp and Dohme Research Laboratories Duration of Award: May 1, 2011-April 30, 2013 Total Amount of Award: \$90,180</p>	<p>PI: Lanbo Shi, Ph.D., Assistant Professor Department: PHRI Project Title: "Triacylglycerol Metabolism and Mtb Virulence" Institution: National Institute of Allergy and Infectious Diseases Duration of Award: June 1, 2011-May 31, 2013 Total Amount of Award: \$429,000</p>
<p>PI: David Perlin, Ph.D., Executive Director & Professor Department: PHRI Project Title: "Study C. Glabrata Isolates" Institution: Duke University Duration of Award: May 9, 2011-May 8, 2012 Total Amount of Award: \$31,250</p>	<p>PI: Jorge Contreras, Ph.D., Assistant Professor Department: Pharmacology & Physiology Project Title: "Gating and Regulation of Connexin Hemichannels" Institution: National Institute of General Medical Sciences Duration of Award: July 1, 2011-June 30, 2016 Total Amount of Award: \$1,473,062</p>
<p>PI: Min Lu, Ph.D., Professor Department: PHRI Project Title: "Development of an HIV-1 Entry Inhibitor Pre-Drug as a Microbicide" Institution: National Institute of Allergy & Infectious Diseases Duration of Award: May 15, 2011-April 30, 2013 Total Amount of Award: \$427,729</p>	<p>PI: Edwin Deith, MD, Professor Department: Surgery Project Title: "Training in Trauma and Critical Care Research" Institution: National Institute of General Medical Sciences Duration of Award: July 1, 2011-June 30, 2016 Total Amount of Award: \$1,082,003</p>
<p>PI: David Perlin, Ph.D., Executive Director & Professor Department: PHRI Project Title: "Evaluation of ASP9726 on Inhibition Glucan Synthase from Susceptible and Echinocandin Resistant Fungi" Institution: Astellas Pharma US, Inc. Duration of Award: May 15, 2011-May 14, 2012 Total Amount of Award: \$67,624</p>	<p>PI: Andrew Harris, Ph.D., Professor Department: Pharmacology & Physiology Project Title: "Nitric Oxide S. Nitrosylation and Endothelial Cx37 Gap Junctions" Institution: American Heart Association Duration of Award: July 1, 2011-June 30, 2014 Total Amount of Award: \$198,000</p>
<p>PI: David Alland, MD, Assistant Dean, Clinical Research Department: Medicine Project Title: "Developing Stool Protocols for the X-Pert System" Institution: Howard Hughes Medical Institute Duration of Award: May 19, 2011-May 18, 2012 Total Amount of Award: \$75,000</p>	<p>PI: Stephen Kamin, Ph.D., Associate Professor Department: Neurology & Neurosciences Project Title: "Investigate the Long-Term Safety, Tolerability and Efficacy of 10, 20 and 40 mg/day....." Institution: Actelion Pharmaceuticals, Ltd. Duration of Award: July 1, 2011-June 30, 2012 Total Amount of Award: \$440,042</p>
<p>PI: Abraham Aviv, Ph.D., Professor & CM Director Department: Medicine Project Title: "Modeling HIV Transmission and Prevention in Newark, NJ" Institution: Foundation of UMDNJ Duration of Award: February 1, 2011-January 31, 2012 Total Amount of Award: \$25,000</p>	<p>PI: Raphael Mannino, Ph.D., Associate Professor Department: Pathology & Laboratory Medicine Project Title: "Cochleates Technology" Institution: Office of Patents and Licensing Duration of Award: July 1, 2011-June 30, 2012 Total Amount of Award: \$27,000</p>
<p>PI: Nikhat Parveen, Ph.D., Assistant Professor Department: Microbiology & Molecular Genetics Project Title: "Borrelia burgdorferi Glycosaminoglycan Interactions and Lyme Disease Pathogenesis" Institution: National Institute of Allergy and Infectious Diseases Duration of Award: July 1, 2011-June 30, 2016 Total Amount of Award: \$1,707,600</p>	<p>PI: Reynard McDonald, MD, Professor Department: Medicine Project Title: "Lattimore State" Institution: New Jersey Department of Health & Senior Services Duration of Award: July 1, 2011-June 30, 2012 Total Amount of Award: \$979,033</p>
<p>PI: Vijaya Santhakumar, Ph.D., Assistant Professor Department: Neurology & Neurosciences Project Title: "Role of Semilunar Granule Cells in Post-Traumatic Hyper-Excitability" Institution: New Jersey Commission on Brain Injury Research Duration of Award: June 1, 2011-May 31, 2013 Total Amount of Award: \$209,808</p>	<p>PI: Vanessa Routh, Ph.D., Professor Department: Pharmacology & Physiology Project Title: "Characterization of Estrogen Sensitive Ventromedial Hypothalamic Glucosensing" Institution: National Institute of Diabetes and Digestive and Kidney Disease Duration of Award: July 1, 2011-June 30, 2012 Total Amount of Award: \$28,411</p>

2011 UPCOMING DEADLINES

<p>September 27 P Series R/18/U18/R25</p>	<p>October 5 R01 (New), U01 (New)</p>	<p>November 5 R01 (Resubmission/Renewal) U01 (Resubmission/Renewal)</p>	<p>December 8 F Series (Fellowship) NJ Commission on Spinal Cord</p>
<p>September 27 T Series C06/UC6 G07/G08/G11 D17</p>	<p>October 12 K Series (New)</p>	<p>November 12 K Series (Resubmission)</p>	<p>December 13 R13, U13</p>
	<p>October 18 R03, R21, R33, R21/ R33 (New)</p>	<p>November 16 R03, R21, R33, R21/R33 (Resubmission/Renewal)</p>	<p>December 15 Susan G. Komen</p>

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Research is an integral component of the New Jersey Medical School (NJMS) and its mission as a health-care and educational institution. The Office of Research and Sponsored Programs (ORSP) is charged with providing pre-award administration to all faculty and staff. ORSP is responsible for assisting principal investigators with application for funding opportunities in support of their research activities and sponsored programs. The goal of ORSP is to provide assistance, guidance and support for identifying funding opportunities, application preparation and proposal tracking. ORSP also provides oversight for medical student research programs. ORSP is dedicated to facilitating the research and research-related programs of our faculty, administration, students and staff.

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