

INSIDE THIS  
ISSUE:

# NEW JERSEY MEDICAL SCHOOL ORSP RESEARCH NEWSLETTER

OFFICE OF RESEARCH &  
SPONSORED PROGRAMS

SPRING / SUMMER 2009  
VOLUME 12, ISSUE 12

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## FEATURED FACULTY CHUNXIANG ZHANG, M.D., PH.D. ASSOCIATE PROFESSOR AND VICE CHAIR OF RESEARCH DEPARTMENT OF ANESTHESIOLOGY

Chunxiang Zhang, M.D., Ph.D. is an Associate Professor and the Vice Chair of Research in the Department of Anesthesiology at the New Jersey Medical School. He obtained his M.D. degree (equivalent) in China in 1987. After obtaining his medical licenses in Internal Medicine, Cardiovascular Medicine and Interventional Cardiology, he entered a Master degree training program at Qingdao Medical College of Qingdao University in 1991. The study for his Master degree focused on the biological roles of Endothelin-1 in cardiovascular disease. In 1994, after obtaining his Master's degree in cardiovascular biology, he entered a Ph.D. (equivalent M.D & Ph.D.) training program at Guangdong Cardiovascular Institute and the WHO center. His thesis dissertation focused on the roles of bFGF in ischemic heart disease. In 1996, he had been to Hong Kong and Australia to perform radioactive stent and human atherosclerotic studies. He was appointed as an Associate Professor and the Director of Laboratory-Based Research at Guangdong Provincial Hospital in 1996. Dr. Zhang obtained his Ph.D. degree in cardiovascular biology in 1997.

Dr. Zhang came to the United States in 1997 as a post-doctoral fellow at the University of Alabama at Birmingham. His postdoctoral study was focused on oxidative stress and vascular biology. He discovered that leukocyte-derived myeloperoxidase (MPO) is a vascular nitric oxide oxidase that plays important roles in endothelial dysfunction. The results from this research were published in *Science*, *Circulation*, *J Biol Chem* and *Am J Physiol*. Based on his postdoctoral study, his supervisor obtained a new NIH R01 grant in 2000.

In 2001, Dr. Zhang was appointed as an Assistant Professor and the Director of the cross-department Vascular Injury Laboratory at the University of Tennessee. Through 2006, the vascular injury group had generated 8 NIH new grants and over 50 high quality publications. In 2005, he was also appointed as the Director of the Cardiovascular Research Laboratory at the department of Surgery. In 2006, Dr. Zhang was promoted to Associate Professor with tenure at the University of Tennessee.

In 2007, Dr. Zhang was appointed as an Associate Professor and the Vice Chair of Research in the Department of Anesthesiology at the New Jersey Medical School. Since moving to New Jersey, Dr. Zhang has decided that neuroscience and cardiovascular research should be the top priorities of the department's research. With the support of the department, Dr. Zhang has set up a new core laboratory for translational studies, and an RNA & Cardiovascular Research Laboratory within the department. As we well know, anesthesiologists are burdened with clinical work. To increase clinical research activity, the department has decided to give two academic hours per day to the clinical faculty members to perform research. After two year's of hard work, the department's research activity has significantly improved. For example, at the 2008 *American Society of Anesthesiologists (ASA)* meeting, the department had 17 research presentations. Over 40 high quality research articles have been published in the past two years. After receiving new NIH R01 grants, the department is now among the top 40 anesthesiology departments in NIH funding.

Dr. Zhang's research achievements are also well documented by his own research publications and grant generation. He has published 60 peer-reviewed research articles in high impact journals such as *Science*, *J Exp Med*, *Circ Res.*, *ATVB*, *Diabetes*, *JBC* and *AJP*. Since 2001, he has obtained seven NIH R01 grants, two AHA grants and one ADA grant, for which he worked either as Principal Investigator, Co-Principal Investigator, or Co-Investigator. In 1998, he was awarded the First Prize of Science and Technology Achievement from the Chinese government. In 2005, he was awarded the Faculty Award from American Diabetes Association.

Currently, Dr. Zhang's research is focused on the roles of microRNAs in cardiovascular disease, organ protection, and drug addiction. In fact, his lab is the first group to explore the roles of this new layer of gene expression regulation in vascular smooth muscle cell biology and in vascular neointimal lesion formation as shown in his 13 recent microRNA-related publications, including 4 articles in *Circulation Research*. He has just obtained a new grant from the AHA. In addition, one of his recent NIH R01 grant applications received a score that is very close to the supporting rate. There is no doubt that Dr. Zhang will continue to contribute to both the department's research administration and his own research projects.

## THANK YOU!!!

We would like to thank the NJMS faculty for taking time from their research, teaching, and administrative responsibilities to review proposal applications. Your commitment and dedication has contributed to the success of our NJMS internal funding programs.

We would like to acknowledge the efforts of the following June 2009 review committee members: Dr. David Alland, Dr. Christophe Depre, Dr. Nancy Connell, Dr. Sergei Kotenko, Dr. David Lukac, Dr. BJ Wagner, Dr. Scott Kachlany, Dr. Zoltan Spolarics, Dr. Purnima Bhanot, Dr. Edouard Azzam, Dr. Elizabeth Moran, Dr. Hua Zhu, Dr. George Yap, Dr. Neerja Kaushik-Basu, Dr. Vivian Bellafatto, Dr. Raymond Birge, Dr. Betsy Barnes, Dr. Richard Howells, Dr. Steven Schutzer, Dr. Vincent Tsiagbe, Dr. Issar Smith, Dr. David Lagunoff, Dr. Robert Wieder, Dr. Michael Lea, Dr. Andreas Ivessa and Dr. Salgame Padmini.

## ARE YOU INVOLVED IN A UMDNJ START-UP COMPANY?

If so, Foundation Venture Capital Group (FVCG) might be able to help you. Foundation Venture, an affiliate of New Jersey Health Foundation, was founded in 2006 to invest in commercially viable new start-ups developing technology at UMDNJ. FVCG collaborates with the Office of Patents and Licensing to identify the most promising research and provide greater support and opportunities for newly formed start-up companies.

To date, Foundation Venture has made \$500,000 commitments to each of four UMDNJ companies: Longevica Pharmaceuticals, Inc.; CellXplore, Inc.; Snowdon Pharmaceuticals and Actinobac Biomed.

"The faculty at UMDNJ has been involved in breakthrough research projects for a number of years, many of them ready to successfully be considered for investment," explained James M. Golubieski, president. Our investments can help UMDNJ entrepreneurs develop their commercial potential."

Once these companies are established with this seed funding, Foundation Venture will seek to work with other traditional venture capital companies to partner in the effort to advance these technologies.

"The benefits of this extra early funding from Foundation Venture means that emerging medical breakthroughs in research and technology businesses can be sustained by sufficient venture capital to optimize their chances of success and ultimately provide revenue to UMDNJ and the groups that support these ventures," explained George F. Heinrich, M.D., vice chair and CEO.

For more information, contact James Golubieski at [jgolubieski@njhf.org](mailto:jgolubieski@njhf.org) or Vince Smeraglia, director of Patents and Licensing, at [smeragva@UMDNJ.edu](mailto:smeragva@UMDNJ.edu).

## ANNOUNCING: NJMS FALL 2009 BRIDGE GRANTS PROGRAM

Applications are now being accepted for bridge grant categories only. Award amount will be \$25,000 with no matching fund requirements. Instructions and fillable application forms are available on the ORSP website: [http://njms.umdj.edu/research/orsp/bridge\\_grants.cfm](http://njms.umdj.edu/research/orsp/bridge_grants.cfm)

Completed application should be delivered to Giovanna Comer at the Office of Research and Sponsored Programs, MSB, C690. Deadline for receipt of applications: October 30, 2009 at 5pm. The program is supported by the Foundation of UMDNJ and the Dean's Biomedical Research Support Program. For any questions regarding the program, please contact: Gwendolyn Mahon, Ph.D., ORSP extension 2-1591.

## IMPORTANT NIH ANNOUNCEMENT: CHANGES TO GRANT APPLICATION FORM

The NIH has announced significant changes to its grant application form. All new/resubmission applications with due dates on/after January 25, 2010 are required to use the new form. Among other changes, the new form sets shortened page limits and adds new research strategy, significance, innovation and approach sections. In addition, the biographical sketch requirements now includes a personal statement section asking that proposed personnel, "Briefly describe why your experience and qualifications make you particularly well-suited for your role (e.g., PD/PI, mentor, participating faculty) in the project that is the subject of the application."

Please review this link: <http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-149.html>

## ANNOUNCING: UMDNJ NOW SUBSCRIBES TO A NEW FUNDING SEARCH RESOURCE THE KEY TO RESEARCH FUNDING OPPORTUNITIES.....

Community of Science or COS Funding Opportunities, is a database with a multitude of records representing billions of dollars in grants, fellowships, etc. All NJMS faculty and researchers can find relevant information to secure the funding needed to advance their research. Listed are some of the services offered through COS:

- COS Funding Opportunities—an up-to-date database of announcements for grants, fellowships, awards and more from around the world, comprising more than 25,200 records worth over \$33 billion
- COS Funding Alert—a weekly e-mail notification with a customized list of funding opportunities based on specified criteria provided by the individual COS member.
- COS Expertise—a richly featured knowledge management system for individuals and institutions containing more than 480,000 first-person profiles of researchers from over 1,600 institutions worldwide.
- COS Scholar Universe—a searchable, editorially controlled database of nearly 2 million published scholars in a variety of disciplines.
- COS Public View of Expertise (PVE)—a user-friendly interface to make selected information from an institution's research expertise available to key external constituencies and the general public
- COS Workbench—an easy-to-use Web workspace for Expertise profile holders, with many features to help you promote your work and manage your resume/CV.

MORE GREAT NEWS! DON'T WANT DAILY/WEEKLY UPDATES.....Faculty and Researchers can search for funding opportunities without creating a profile. To learn more about COS, please visit [www.cos.com](http://www.cos.com) or contact Giovanna Comer at extension 2-7090 or e-mail [comerji@umdnj.edu](mailto:comerji@umdnj.edu).

**NEWS FLASH!!**

### NJMS AWARDED GRANT TO OBTAIN SOLiD® HIGH THROUGHPUT DNA SEQUENCER

The New Jersey Cancer Research Development Award (NJCRDA) from the New Jersey Commission on Cancer Research (NJCCR) submitted by Dr. Robert Donnelly, Director of the Molecular Resource Facility (MRF) has been funded. This award will allow the purchase of the SOLiD® high throughput DNA sequencer for the New Jersey Medical School. The SOLiD® instrument is capable of generating over 25 gigabases of mappable sequence from 300 million reads per instrument run. Applications include whole transcriptome analysis, ChIP sequencing, small RNA analysis, resequencing of bacterial genomes and mammalian chromosomes. Other applications can also be developed. The instrument will be housed in the MRF and managed by the staff of the MRF. The data analysis software and storage will be managed through the Center for Genome Informatics (CGI) which is directed by Dr. Bin Tian. Anyone interested in utilizing this exciting new technology should contact the MRF or the CGI.



### NJMS-UH CANCER CENTER AWARDED GRANT TO SUPPORT CANCER CLINICAL TRIALS

The New Jersey Cancer Research Development Award (NJCRDA) to support the UMDNJ-NJMS/UH Cancer Center Clinical Research Office was the only center grant awarded by the State of New Jersey Commission on Cancer Research this year. The PI of the grant is Dr. Robert Wiedner, Associate Professor, and Director of the Cancer Clinical Research Office. The goal of the grant was to support the Cancer Center's efforts to provide the minority and medically underserved patient population of our community with access to the same opportunities to participate in cancer clinical trials as those available to the rest of the population.

The office supports the conduct of clinical trials in the Cancer Center and the efforts of doctors and scientist to move new discoveries to the clinic. Our program's goal is to bring National Cancer Institute (NCI)-approved clinical trials to the minority patients we treat and to become an NCI-designated Minority-Based Community Clinical Oncology Program. Our other major goal is to help develop new treatments for cancer and support the efforts of the doctors and scientists in the cancer center to test new treatment ideas in cancer patients for whom available therapies are ineffective. Our cancer center serves a patient population which is primarily from the inner city neighborhoods of Newark, surrounding towns and urban communities of Essex County. The patients are more than 60% African American and Latino, have disproportionately low income, high poverty rates and high mortality from cancer. Their participation in NCI-approved clinical trials would be negligible were it not for our program. The proposed clinical research program will work to overcome documented barriers to enrollment, including the lack of availability of protocols, underlying medical conditions that interfere with the ability to participate in clinical trials, a lack of understanding of clinical trials, a mistrust of doctors and the medical system and particularly clinical research, in navigating the complex medical care system, and overcoming language barriers. The physicians and scientist in the Cancer Center are eager to participate and help level the health care delivery field to our patients by promoting new ways of translating new scientific findings into cancer treatments.



## GRANT DEADLINES

### OCTOBER 2009

10/5-ROI (NEW)  
 10/5-U01 (NEW)  
 10/12-K SERIES (NEW)  
 10/16-R03,R21, R33, R21/R33, R34, R36 (NEW)  
 10/25-R15 (RENEWAL, RESUBMISSION, REVISION)  
 10/30-FUMDNJ-BRIDGE PROGRAM

### NOVEMBER 2009

11/5-R01(RENEWAL, RESUBMISSION, REVISION)  
 11/5-U01 (RENEWAL, RESUBMISSION, REVISION)  
 11/12-K SERIES (RENEWAL, RESUBMISSION, REVISION)  
 11/16-R03, R21, R33, R21/R33, R34, R36 (RENEWAL, RESUBMISSION, REVISION)

### DECEMBER 2009

12/5-R41, R42, R43, R44 ALL-(NEW, RENEWAL, RESUBMISSION, REVISION)  
 12/8-F SERIES FELLOWSHIPS (NEW, RENEWAL, RESUBMISSION)  
 12/12- R13, U13 ALL-(NEW, RENEWAL, RESUBMISSION, REVISION)  
 12/13- F31 DIVERSITY FELLOWSHIPS (NEW, RENEWAL, RESUBMISSION)



PADMINI SALGAME, PH.D.  
 PROFESSOR  
 DEPARTMENT OF MEDICINE, DIVISION OF INFECTIOUS DISEASES  
 Email: salgampa@umdnj.edu

## THE NEW FLOW CYTOMETRY & IMMUNOLOGY CORE LABORATORY

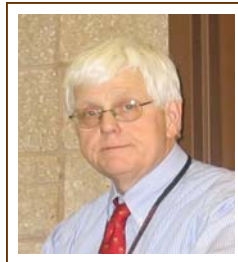
The Flow Cytometry and Immunology Core Laboratory (FCICL) provides flow cytometric services to research laboratories at NJMS and surrounding universities and industry. The facility is located on the F level of the Medical Science Building with satellites in the UH-NJMS Cancer Center and the Center for Emerging and Re-emerging Pathogens. The FCICL operates 3 BD FACSCaliburs, which allow users to analyze basic light scattering properties of cells along with four distinct fluorescent markers, a BD LSR II, which with its four lasers can detect up to 12 fluorescent markers, a BD FACSVantage, a cell sorter for the isolation of distinct fixed/viable cell populations for further studies, and an AMNIS ImageStream multispectral imaging flow cytometer. The ImageStream combines the fluorescence measurements of conventional flow cytometry with the quantification and analysis of cellular morphology. In addition, a BD FACSAria II is on order and will be available for the sorting of BSL-3 pathogens (see accompanying article). The FCICL also provides technical support and training on the instruments and software as well as discounts for BD reagents.

The FCICL is also involved in many HIV/AIDS clinical research projects. We perform flow cytometric analysis of patient samples and provide support for the isolation and cryopreservation of cells and serum. The FCICL is both CAP and IQA certified, thus validating our clinical sample results. The facility is directed by Dr. Patricia Fitzgerald-Bocarsly, Professor, Dana Stein, Technical Director and Dr. James Oleske serving as the Medical Director. For more details on the facility services, please visit our website at: [http://njms.umdnj.edu/research/resources/flow\\_cytometry\\_cell\\_sorting/index.cfm](http://njms.umdnj.edu/research/resources/flow_cytometry_cell_sorting/index.cfm)

## MEET THE FCICL STAFF



PATRICIA FITZGERALD-BOCARSLY, PH.D.  
 DIRECTOR



JAMES OLESKE, M.D.  
 PROFESSOR



DANA STEIN, BS, MT, ASCP  
 TECHNICAL DIRECTOR



SUKHWINDER SINGH, PH.D.  
 RA 11

## COMING SOON TO THE FCICL:

### A BD FACSAria II CELL SORTER for BSL-3 PATHOGENS

Dr. Padmini Salgame, from the Center for Emerging and Reemerging Pathogens (CERP), was recently awarded a National Center for Research Resources Shared Instrument Grant for the BD FACSAria II cell-sorter. This grant represents a collaborative effort between Dr. Salgame, researchers in the CERP, researchers at the PHRI and the Flow Cytometry and Immunology Core Laboratory (FCICL). The FACSAria will be located in the BSL-3 Lab in the CERP and operated as a satellite of the FCICL. The acquisition of the FACSAria will allow for the analysis and sorting of live TB and other agents that require BSL-3 handling along with the ability to analyze the interaction between mammalian cells and those pathogens. The FACSAria, which is on order, will be housed within a BSL-3 lab; additional protection for the operator will be provided by an aerosol management device, and the FACSAria itself will be housed in a walk-in Baker Biosafety cabinet. The FACSAria will be equipped with two lasers allowing for the simultaneous acquisition of up to 10 parameters. After the identification of populations of interest, up to 4 distinct populations can be sorted into separate tubes or can be deposited into multi-well plates for further culture or onto slides for microscopic analysis. Please contact Dr. Salgame or the FCICL for more information.

# ANNOUNCING: NEW NIH PEER REVIEW PROCESS

## NIH ANNOUNCEMENT

Please be aware that the NIH is no longer using the PA-06-181 and PA-06-180 for the R21 and R03 respectively for the grants.gov application. The new program announcements are PA-09-163 for the R03 and PA-09-164. NJMS pre-filled application packages are available on our website link: [http://njms.umd.edu/research/or\\_sp/rates\\_forms.cfm](http://njms.umd.edu/research/or_sp/rates_forms.cfm)



**DON'T  
GET  
BEHIND  
THE  
EIGHT BALL.....**

Prepare proposal applications in advance.

For pre-submission review, proposals are due to the ORSP grant administrator ten working days prior to submission.

Final proposals are due to the ORSP grant administrator three days prior to submission.

We cannot guarantee thorough review of proposals submitted less than three days before the submission

### Rationale for the New NIH Grant Application Scoring System

The prior scoring system of 1.0 to 5.0 in 0.1 increments served NIH well for many years, but its weaknesses became increasingly evident as the quality and quantity of applications increased and NIH budgets to fund grant applications tightened. The new scoring system is being implemented to address the following issues:

- For even the most experienced reviewers, it is difficult to make 41 reliable discriminations of application merit. Based on measurement science, prior experience, and feedback from various constituencies, a 9-point rating scale with descriptors associated with each rating option was adopted.
- Reviewer ratings became increasingly positive, compressing the score range, and effectively reducing the usefulness of scores for NIH funding decisions. In the new scoring system, the descriptors associated with each rating were designed to encourage use of the full scoring range.
- To provide additional feedback to applicants, program staff, and other consumers of the summary statement, assigned reviewers also provide rating of the specific review criteria using the same 9-point scale.

Impact	Score	Descriptor	Strengths/Weaknesses
High Impact	1	Exceptional	
	2	Outstanding	
	3	Excellent	
Moderate Impact	4	Very Good	
	5	Good	
	6	Satisfactory	
Low Impact	7	Fair	
	8	Marginal	
	9	Poor	

**Non-numeric score options:** NR = Not Recommended for Further Consideration, DF = Deferred, AB = Abstention, CF = Conflict, NP = Not Present, ND=Not Discussed

### The NIH Grant Application Scoring System

The NIH scoring system uses a 9-point rating scale from 1 = Exceptional to 9 = Poor for the overall impact/priority score as well as the individual review criteria. Ratings are provided only in whole numbers, not decimals. In addition to the descriptors associated with each rating, two additional rating guides (see below) are provided:

- For the impact/priority score, the far left column provides guidance for assigning scores to applications based on the project's likelihood to have a sustained, powerful influence on the research field(s) involved:  
1 to 3 = high impact 4 to 6 = moderate impact 7 to 9 = low impact
- For the impact/priority score and for the individual criterion scores, the far right column provides a graphical guide of how strengths and weaknesses are considered in assigning a rating. A score of 1 indicates an exceptionally strong application (or exceptionally strong significance, investigators, innovation, approach, environment) with essentially no weaknesses. A score of 9 indicates serious and substantive weaknesses with very few strengths. For the impact/priority score rating, strengths and weaknesses across all of the review criteria should be considered. For each criterion rating, the strengths and weaknesses within that review criterion should be considered. In considering strengths and weaknesses, reviewers should consider the relative importance of the strengths and weaknesses noted, not simply the number of strengths and weaknesses.

### Links to detailed info on new NIH peer review:

[http://grants.nih.gov/grants/peer/reviewer\\_guidelines.htm](http://grants.nih.gov/grants/peer/reviewer_guidelines.htm)

[http://enhancing-peer-review.nih.gov/Talking\\_Points\\_for\\_SROs.pdf](http://enhancing-peer-review.nih.gov/Talking_Points_for_SROs.pdf)

[http://grants.nih.gov/grants/peer/guidelines\\_general/scoring\\_system\\_and\\_procedure.pdf](http://grants.nih.gov/grants/peer/guidelines_general/scoring_system_and_procedure.pdf)

[http://grants.nih.gov/grants/peer/guidelines\\_general/Review\\_Criteria\\_at\\_a\\_glance.pdf](http://grants.nih.gov/grants/peer/guidelines_general/Review_Criteria_at_a_glance.pdf)

[http://grants.nih.gov/grants/peer/guidelines\\_general/reviewer\\_orientation.pdf](http://grants.nih.gov/grants/peer/guidelines_general/reviewer_orientation.pdf)

THE ABOVE INFORMATION WAS EXCERPTED FROM THE NIH WEBSITE.



**LETTITIA DEAN**  
PROGRAM ADMINISTRATOR  
NIMS-ORSP  
SUMMER STUDENT RESEARCH PROGRAM



**PROPOSAL NOTICES**

The ORSP would like to insure that all NJMS faculty and researchers receive credit for successful funding proposals. Please remember to share your award notices with us, as well as the Grants and Contracts Office.

We also need information regarding non-funded proposals. Please help us maintain a current database by informing our office of the outcome for ALL proposals.



**QUESTIONS ABOUT GRANT SUBMISSIONS?** Contact the appropriate grant administrator or call the main number at 973-972-7766.

**For Current Rates Please**

Visit : [http://njms.umdnj.edu/research/orsp/CurrentRates\\_001.htm](http://njms.umdnj.edu/research/orsp/CurrentRates_001.htm)  
or call Grants and Contracts at 973-972-6456

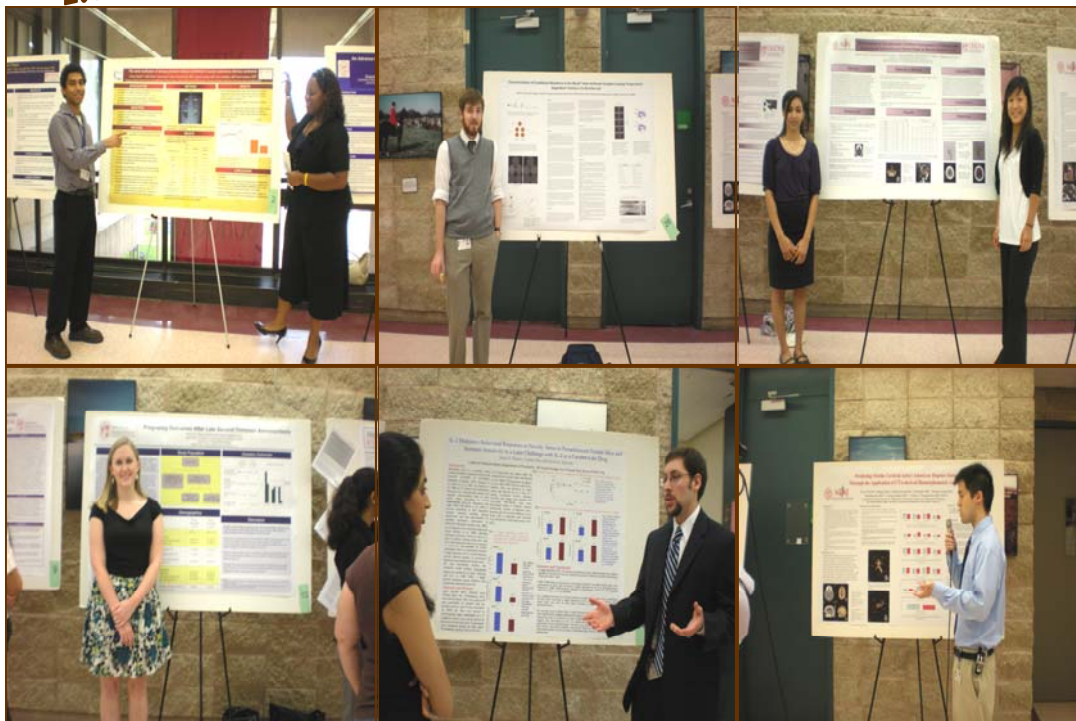
# CONGRATULATIONS!!

## NEW JERSEY MEDICAL SCHOOL ORSP SUMMER STUDENT RESEARCH PROGRAM

### 2009 POSTER SESSION WINNERS

- 1ST PLACE:** NEIL KULKARNI  
MENTOR: ROBERT LEDEEN, PH.D., PROFESSOR  
NEUROLOGY AND NEUROSCIENCES  
MENTOR: GUSHENG WU, PH.D., ASSISTANT PROFESSOR  
NEUROLOGY AND NEUROSCIENCES  
PROJECT TITLE: DEVELOPMENT OF PARKINSON'S SYMPTOMS IN GM1-NULL MICE: EFFECT OF GM1 ANALOGUE LIGA 20
- 2ND PLACE:** IRENE OJINI  
MENTOR: CHARLES R. SPILLERT, PH.D., ASSOCIATE PROFESSOR  
SURGERY  
PROJECT TITLE: GLUCONO-DELTA-LACTONE: AN IN VITRO INHIBITOR OF HYPER GLYCEMIA-INDUCED COAGULATION
- 2ND PLACE:** SHANCHITA GHOSH  
MENTOR: MELISSA ROGERS, PHD, ASSOCIATE PROFESSOR  
BIOCHEMISTRY & MOLECULAR BIOLOGY  
PROJECT TITLE: SINGLE NUCLEIOTIDE POLYMORPHISMS AND REGULATION OF BMP2 PROTEIN

### 2009 ORSP SUMMER STUDENT POSTER HIGHLIGHTS



**Note:** Summer Student Abstracts will be available by the end of October.

# CONGRATULATIONS!!

## NEW JERSEY MEDICAL SCHOOL CANCER EDUCATION PROGRAM

### 2009 POSTER SESSION WINNERS



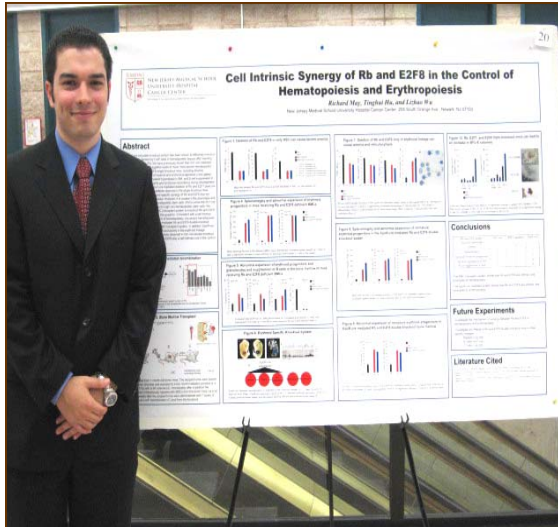
**LORIE-ANNE PHILLIPS**  
COORDINATOR  
NJMS-CANCER EDUCATION  
SUMMER PROGRAM  
Funded by the:  
NCI Program Grant  
R25CA019536-26

#### STUDENT WINS COMPETITIVE SCHOLARSHIP TO PRESENT CANCER RESEARCH

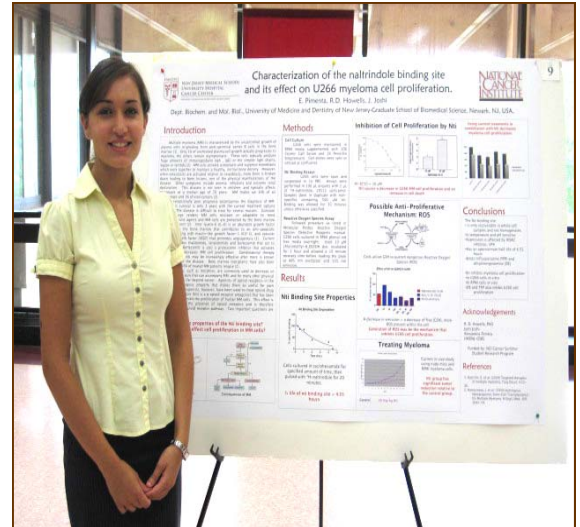
Medical Student III Ronak Shah's research project, performed under the aegis of the 2008 Cancer Summer Student Research Program, (Mentor, Lionel Zuckier, M.D., Professor, Department of Radiology) has been awarded a competitive scholarship award to allow Ronak to present his data at the bi-annual meeting of the Medical Image Perception Society, held this year in Santa Barbara, California.

Ronak's project is entitled "Effect of 3-D Rendering on Conspicuity of PET Lesions Using a Novel Software Method and Deals with New Methods of Visualizing Fused PET-CT Data".

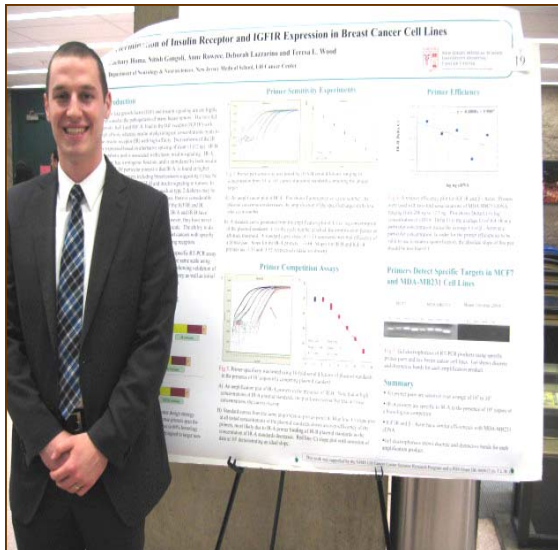
Congratulations Ronak for your successful efforts and thanks to the staff of the Cancer Summer Student Research Program for facilitating the research.



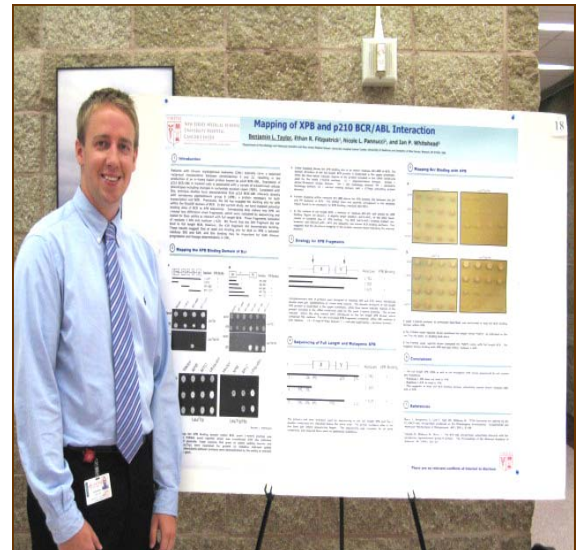
**1ST PLACE: RICHARD MAY**  
MENTOR: LIZHAO WU, PH.D., ASSISTANT PROFESSOR  
CELL BIOLOGY & MOLECULAR MEDICINE  
PROJECT TITLE: CELL INTRINSIC SYNERGY OF RB AND E2F8  
IN THE CONTROL OF HEMATOPOIESIS AND ERYTHROPOIESIS



**2ND PLACE: ERICA PIMENTA**  
MENTOR: RICHARD D. HOWELLS, PH.D., PROFESSOR  
BIOCHEMISTRY & MOLECULAR BIOLOGY  
PROJECT TITLE: CHARACTERIZATION OF THE INHIBITORY  
EFFECTS OF NALTRINDOLE ON MULTIPLE MYELOMA CELL



**2ND PLACE: ZACHARY HOMA**  
MENTOR: TERESA L. WOOD, PH.D., PROFESSOR  
MENTOR: DEBORAH A. LAZZARINO, PH.D., ASSISTANT  
PROFESSOR  
NEUROLOGY & NEUROSCIENCES  
PROJECT TITLE: DETERMINATION OF INSULIN RECEPTOR  
AND IGF1R EXPRESSION IN BREAST CANCER CELLS



**3RD PLACE: BENJAMIN TAYLOR**  
MENTOR: IAN WHITEHEAD, PH.D., ASSOCIATE PROFESSOR  
MICROBIOLOGY & MOLECULAR GENETICS  
PROJECT TITLE: MAPPING OF XPB AND p210 BCR/ABL  
INTERACTION

# CONGRATULATIONS!!!!

## NJMS GRANT AWARD RECIPIENTS

AWARDS RECEIVED  
01/01/09-09/15/09

### NIH AWARDS

**PI: MAHA ABDELLATIF, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: A RasGAP-microRNA Connection in Cardiac Hypertrophy  
 INSTITUTION: National Heart, Lung and Blood Institute  
 DURATION OF AWARD: 4 years  
 TOTAL AMOUNT OF AWARD: \$1,560,000

**PI: DAVID ALLAND, M.D., PROFESSOR**  
**DEPARTMENT: MEDICINE**  
 PROJECT TITLE: Rapid Diagnosis of XDR Tuberculosis  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 5 years  
 TOTAL AMOUNT OF AWARD: \$2,731,877

**PI: DAVID ALLAND, M.D., PROFESSOR**  
**DEPARTMENT: MEDICINE**  
 PROJECT TITLE: Development of a Second Generation MDR-XDR TB Assay  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 5 years  
 TOTAL AMOUNT OF AWARD: \$7,514,861

**PI: ABRAHAM AVIV, PH.D., PROFESSOR**  
**DEPARTMENT: PEDIATRICS**  
 PROJECT TITLE: Leukocyte Telomere Dynamics, Gender, Menopause, Insulin Resistance and Survival  
 INSTITUTION: National Institute on Aging  
 DURATION OF AWARD: 5 years  
 TOTAL AMOUNT OF AWARD: \$2,307,494

**PI: PING-HSIN CHEN, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: FAMILY MEDICINE**  
 PROJECT TITLE: Early Childhood Development in Relation to Intimate Partner Violence During Pregnancy  
 INSTITUTION: National Institute of Child Health and Human Development  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$156,000

**PI: EDWIN A. DEITCH, M.D., PROFESSOR & CHAIR**  
**DEPARTMENT: SURGERY**  
 PROJECT TITLE: Shock, Trauma and Gut Origin of Sepsis  
 INSTITUTION: National Institute of General Medical Sciences  
 DURATION OF AWARD: 4 years  
 TOTAL AMOUNT OF AWARD: \$2,306,263

**PI: JOEL A. DELISA, M.D., M.S., PROFESSOR**  
**DEPARTMENT: PHYSICAL MEDICINE & REHABILITATION**  
 PROJECT TITLE: Advanced Rehabilitation Research Training (AART) Center on Neuro-cognitive Rehabilitation  
 INSTITUTION: National Institute on Disability and Rehabilitation Research  
 DURATION OF AWARD: 5 years  
 TOTAL AMOUNT OF AWARD: \$749,057

**PI: CHRISTOPHE DEPRE, M.D., PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: Pre-Emptive Conditioning of the Ischemic Heart  
 INSTITUTION: National Heart, Lung and Blood Institute  
 DURATION OF AWARD: 4 years  
 TOTAL AMOUNT OF AWARD: \$1,560,000

**PI: WALTER DURAN, PH.D., PROFESSOR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Control of Microcirculatory Exchange Function  
 INSTITUTION: National Heart, Lung and Blood Institute  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$1,724,227

**PI: WILLIAM C. GAUSE, PH.D., SENIOR ASSOCIATE DEAN FOR RESEARCH**  
**DEPARTMENT: MEDICINE**  
 PROJECT TITLE: Cytokine Gene Expression During in Vivo Immune Response  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 5 years  
 TOTAL AMOUNT OF AWARD: \$1,950,000

**PI: AMJAD A. ILYAS, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: NEUROLOGY & NEUROSCIENCES**  
 PROJECT TITLE: Generation of Monoclonal and Polyclonal Antibodies to Neolacto-Series Gangliosides  
 INSTITUTION: National Institute of Neurological Disorders and Stroke  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$156,000

**PI: GILLA KAPLAN, PH.D., PROFESSOR**  
**DEPARTMENT: PHRI**  
 PROJECT TITLE: Emerging XDR-TB: Host and Pathogen Contributions  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 5 years  
 TOTAL AMOUNT OF AWARD: \$645,349

**PI: DAVID DAEKYUNG KIM, PH.D., ADJUNCT ASSISTANT PROFESSOR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Assessment of Meridian Theory in the Vascular System  
 INSTITUTION: National Center for Complementary and Alternative Medicine  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$429,000

**PI: ELDO KUZHIKANDATHIL, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Regulation of D1 Dopamine Receptor Expression by ncRNA in Cocaine Addiction  
 INSTITUTION: National Institute on Drug Abuse  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$297,160

**PI: ELDO KUZHIKANDATHIL, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Functional Characterization of D3 Dopamine Receptor in the Drd3EGFP Transgenic Mice  
 INSTITUTION: National Institute of Mental Health  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$417,800

**PI: DAVID LUKAC, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: MICROBIOLOGY & MOLECULAR GENETICS**  
 PROJECT TITLE: Re-Specification of the Notch Response by the HHV-8 Lytic Switch Protein2  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 5 years  
 TOTAL AMOUNT OF AWARD: \$1,944,960

**PI: PATRICK O'CONNOR, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**  
 PROJECT TITLE: Local Modulation of Inflammation to Heal Cranial-Facial Bone Defects  
 INSTITUTION: National Institute of Dental & Craniofacial Research  
 DURATION OF AWARD: 4 years  
 TOTAL AMOUNT OF AWARD: \$2,765,089

**PI: VIRENDRA N. PANDEY, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**  
 PROJECT TITLE: Constituents of HCV Replication Complex  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$447,700

**PI: VANESSA ROUTH, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Hormonal Regulation of Glucose Sensing Neurons in Health Diabetes  
 INSTITUTION: National Institute of Diabetes and Digestive and Kidney Disease  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$390,000

**PI: VANESSA ROUTH, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Hypoglycemia-Induced NO in Glucose Sensing Neurons and Counterregulation  
 INSTITUTION: National Institute of Diabetes and Digestive and Kidney Disease  
 DURATION OF AWARD: 5 years  
 TOTAL AMOUNT OF AWARD: \$1,766,700



**NIH AWARDS****PI: LISA K. RYAN, PH.D., ASSISTANT PROFESSOR****DEPARTMENT: PHRI**

PROJECT TITLE: Inhibition of Lung Defense by Air Pollutant Particulates

INSTITUTION: National Institute of Environmental Health Services

DURATION OF AWARD: 2 years

TOTAL AMOUNT OF AWARD: \$156,000

**PI: JUNICHI SADOSHIMA, PH.D., PROFESSOR****DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**

PROJECT TITLE: Redox Regulation in Aging and Failing Heart

INSTITUTION: National Institute on Aging

DURATION OF AWARD: 5 years

TOTAL AMOUNT OF AWARD: \$1,929,289

**PI: ZOLTAN SPOLARICS, M.D., PH.D., PROFESSOR****DEPARTMENT: SURGERY**

PROJECT TITLE: X-Chromosome, Injury and Infection

INSTITUTION: National Institute of General Medical Sciences

DURATION OF AWARD: 4 years

TOTAL AMOUNT OF AWARD: \$1,166,880

**PI: BIN TIAN, PH.D., ASSOCIATE PROFESSOR****PI: CAROL LUTZ, PH.D., ASSOCIATE PROFESSOR****DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**

PROJECT TITLE: Computational and Experimental Analysis of RNA Structures in mRNA Polyadenylation

INSTITUTION: National Human Genome Research Institute

DURATION OF AWARD: 2 years

TOTAL AMOUNT OF AWARD: \$429,000

**PI: DOROTHY VATNER, PH.D., PROFESSOR****DEPARTMENT: MEDICINE**

PROJECT TITLE: Rescue of Beta-Adrenergic Cardiomyopathy by Inhibition of Adenylyl Cyclase

INSTITUTION: National Heart, Lung and Blood Institute

DURATION OF AWARD: 4 years

TOTAL AMOUNT OF AWARD: \$1,560,000

**ARRA AWARDS****PI: DAVID ALLAND, M.D., PROFESSOR****DEPARTMENT: MEDICINE**

PROJECT TITLE: Integrated Dual Use Systems for Bio Defense and Sepsis Diagnosis

INSTITUTION: National Institute of Allergy and Infectious Diseases

DURATION OF AWARD: 2 years

TOTAL AMOUNT OF AWARD: \$98,607

**PI: SYLVIA CHRISTAKOS, PH.D., PROFESSOR****DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**

PROJECT TITLE: Vitamin D Hormone Function and Mechanism of Action

INSTITUTION: National Institute of Diabetes and Digestive and Kidney Disease

DURATION OF AWARD: 2 years

TOTAL AMOUNT OF AWARD: \$15,600

**PI: PATRICIA FITZGERALD-BOCARSLY, PH.D., PROFESSOR****DEPARTMENT: PATHOLOGY & LABORATORY MEDICINE**

PROJECT TITLE: Plasmacytoid Dendritic Cells in HIV Pathogenesis

INSTITUTION: National Institute of Allergy and Infectious Diseases

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$30,076

**PI: ROGER HOWELL, PH.D., PROFESSOR****DEPARTMENT: RADIOLOGY**

PROJECT TITLE: Protection Against Radiation Induced Damage to Intestinal Nutrient Transport

INSTITUTION: National Institute of Allergy and Infectious Diseases

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$186,648

**PI: ZAFRI M. HUMAYUN, PH.D., PROFESSOR****DEPARTMENT: MICROBIOLOGY & MOLECULAR GENETICS**

PROJECT TITLE: Mechanisms of Mistranslation-Mediated Mutator Response

INSTITUTION: National Institute of General Medical Sciences

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$134,291

**PI: STEPHEN F. VATNER, M.D., PROFESSOR & CHAIR****DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**

PROJECT TITLE: Adenylyl Cyclase Isoforms in Hypertrophy and Heart Failure

INSTITUTION: National Heart, Lung and Blood Institute

DURATION OF AWARD: 5 years

TOTAL AMOUNT OF AWARD: \$2,491,325

**PI: STEPHEN F. VATNER, M.D., PROFESSOR & CHAIR****DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**

PROJECT TITLE: Integrative Mechanism in Cardiovascular Disease

INSTITUTION: National Heart, Lung and Blood Institute

DURATION OF AWARD: 5 years

TOTAL AMOUNT OF AWARD: \$1,344,545

**PI: ROBERT WIEDER, M.D., ASSOCIATE PROFESSOR****DEPARTMENT: MEDICINE**

PROJECT TITLE: Reactivation of Breast Cancer Micrometastases by Senescent Bone Marrow Stroma

INSTITUTION: National Cancer Institute

DURATION OF AWARD: 2 years

TOTAL AMOUNT OF AWARD: \$377,520

**PI: ROBERT WIEDER, M.D., ASSOCIATE PROFESSOR****DEPARTMENT: MEDICINE**

PROJECT TITLE: The Minority-Based CCOP at UMDNJ-NJ Medical School/UH Cancer Center

INSTITUTION: National Cancer Center

DURATION OF AWARD: 3 years

TOTAL AMOUNT OF AWARD: \$1,854,700

**PI: MARK S. JOHNSON, M.D., PROFESSOR & CHAIR****DEPARTMENT: FAMILY MEDICINE**

PROJECT TITLE: Minority Initiative for Students and Teachers (MIST)-Phase I/II

INSTITUTION: National Center for Research Resources

DURATION OF AWARD: 2 years

TOTAL AMOUNT OF AWARD: \$177,854

**PI: SERGEI KOTENKO, PH.D., ASSOCIATE PROFESSOR****DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**

PROJECT TITLE: Evasion of Antiviral Protection by Poxvirus-Encoded IFN Antagonists

INSTITUTION: National Institute of Allergy and Infectious Diseases

DURATION OF AWARD: 2 years

TOTAL AMOUNT OF AWARD: \$429,000

**PI: LEONARD MEGGS, M.D., PROFESSOR****DEPARTMENT: MEDICINE**

PROJECT TITLE: p66 Isulin Like Growth Factor-1 Reno-Protection in Diabetes

INSTITUTION: National Institute of Diabetes and Digestive Kidney Disease

DURATION OF AWARD: 2 years

TOTAL AMOUNT OF AWARD: \$160,627

**PI: PADMINI SALGAME, PH.D., PROFESSOR****DEPARTMENT: MEDICINE**

PROJECT TITLE: TLR2 and the Tubercle Granuloma

INSTITUTION: National Institute of Allergy and Infectious Diseases

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$384,400

**PI: VIRENDRA N. PANDEY, PH.D., ASSOCIATE PROFESSOR****DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**

PROJECT TITLE: Proteomics of HCV Replication Complex

INSTITUTION: National Institute of Allergy and Infectious Diseases

DURATION OF AWARD: 2 years

TOTAL AMOUNT OF AWARD: \$429,000

**ARRA AWARDS**

**PI: DAVID S. PERLIN, PH.D., PROFESSOR & DIRECTOR**  
**DEPARTMENT: PHRI**  
 PROJECT TITLE: A Rapid and Expandable Nucleic Acid Platform to Detect Blood-stream Infections  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF GRANT: 2 years  
 TOTAL AMOUNT OF AWARD: \$335,767

**PI: ABRAHAM PINTER, PH.D., PROFESSOR**  
**DEPARTMENT: MICROBIOLOGY & MOLECULAR GENETICS**  
 PROJECT TITLE: Antigenic Properties of the V1/V2 Domain of HIV-1 gp120  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$641,803

**PI: LANBO SHI, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: MEDICINE**  
 PROJECT TITLE: Dissection of Mycobacterium Tuberculosis Metabolic and Regulatory Pathways to Persistence  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$429,000

**PI: VANESSA ROUTH, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Role of Neuropeptide Y-glucose Inhibited (NPY-GI) Neurons in Cytokine-Induced Anorexia-Cachexia  
 INSTITUTION: National Cancer Institute  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$377,520

**PI: JUNICHI SADOSHIMA, M.D., PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: Redox Regulation in Aging and Failing Heart  
 INSTITUTION: National Institute on Aging  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$155,276

**PI: BRUCE SCHARF, DVM, DACLAM, DIRECTOR**  
**DEPARTMENT: COMPARATIVE MEDICINE RESOURCES**  
 PROJECT TITLE: NJMS Request for Autoclave and Tunnel Washer  
 INSTITUTION: National Center for Research Resources  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$500,000

**PI: ISSAR SMITH, PH.D., PROFESSOR**  
**DEPARTMENT: PHRI**  
 PROJECT TITLE: Molecular Determinants of M Tuberculosis Virulence  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$45,692

**PI: ISSAR SMITH, PH.D., PROFESSOR, PH.D.**  
**PI: GLORIA M. RODRIGUEZ, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: PHRI**  
 PROJECT TITLE: Mechanisms and Regulation of Mycobacterium Tuberculosis Iron Acquisition  
 INSTITUTION: National Institute of Allergy and Infectious Diseases  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$584,781

**PI: KATSUNORI SUGIMOTO, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: Signaling Network of Mec1 in DNA Damage Response  
 INSTITUTION: National Institute of General Medical Sciences  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$108,497

**PI: CAROLYN SUZUKI, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**  
 PROJECT TITLE: High Throughput Screens for Modulators of Mitochondrial ATP-dependent Proteolysis  
 INSTITUTION: National Institute of General Medicine  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$733,700

**PI: ANDREW P. THOMAS, PH.D., PROFESSOR & CHAIR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Ethanol on Excitation-Contraction in Cardiac Cells  
 INSTITUTION: National Institute on Alcohol Abuse and Alcoholism  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$156,000

**PI: BIN TIAN, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**  
 PROJECT TITLE: Analysis of MrNA Polyadenylation Across Species and Tissues  
 INSTITUTION: National Institute of General Medical Sciences  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$134,431

**PI: ELLEN TOWNES-ANDERSON, PH.D. PROFESSOR**  
**DEPARTMENT: NEUROLOGY & NEUROSCIENCES**  
 PROJECT TITLE: Designer Retinal Circuits: Interfacing Optical Tweezers with an Electronic Device  
 INSTITUTION: National Eye Institute  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$38,000

**PI: ELLEN TOWNES-ANDERSON, PH.D., PROFESSOR**  
**DEPARTMENT: NEUROLOGY & NEUROSCIENCES**  
 PROJECT TITLE: Plasticity and Regeneration of Retinal Synapses  
 INSTITUTION: National Eye Institute  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$692,480

**PI: LIN YAN, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: Gender Differences in Caloric Restriction Cardioprotection  
 INSTITUTION: National Heart, Lung and Blood Institute  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$234,000

**PI: LIN YAN, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: Mechanisms of Intrinsic Cardioprotection in Marmota Momax  
 INSTITUTION: National Heart, Lung and Blood Institute  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$209,552

**PI: GEORGE S. YAP, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: MEDICINE**  
 PROJECT TITLE: Regulation of Type 1 Immunity to Toxoplasma  
 INSTITUTION: National Institution of Allergy and Infectious Diseases  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$780,000

**AHA AWARDS**

**PI: DEBKUMAR PAIN, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Role of GTP in Iron-Sulfur Cluster Formation in Mammalian Mitochondria  
 INSTITUTION: American Heart Association  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$198,000

**PI: MELISSA ROGERS, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**  
 PROJECT TITLE: Natural Repressors of BMP2 Synthesis  
 INSTITUTION: American Heart Association  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$198,000

**PI: PIEYONG ZHAI, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: The Role of the GSK-3 Alpha in Cardiac Growth, The Development of Cardiac Hypertrophy and the Progression to Heart Failure  
 INSTITUTION: American Heart Association  
 DURATION OF AWARD: 4 years  
 TOTAL AMOUNT OF AWARD: \$308,000

**PI: CHUNXIANG ZHANG, PH.D., VICE CHAIR, RESEARCH**  
**DEPARTMENT: ANESTHESIOLOGY**  
 PROJECT TITLE: MicroRNA-145 in the Next Generation of Drug Eluting Stents  
 INSTITUTION: American Heart Association  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$198,000

**INSTITUTIONAL TRAINING GRANTS & FELLOWSHIP AWARDS**

**PI: AMANDA B. MCBRIDE**  
**MENTOR: PADMINI SALGAME, PH.D., PROFESSOR**  
**DEPARTMENT: MEDICINE**  
 PROJECT TITLE: Immunosuppressive Role of TLR2 in Host Immunity to Mycobacterium Tuberculosis  
 INSTITUTION: National Heart, Lung and Blood Institute  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$90,762

**PI: TINGHU HU**  
**MENTOR: LIZHAO WU, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: Rb/E2F Pathway in Hematopoiesis and Leukemia  
 INSTITUTION: New Jersey Commission on Cancer Research  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$86,167

**PI: PIOTR PIEROG**  
**MENTOR: PATRICIA FITZGERALD-BOCARSLY, PH.D, PROFESSOR**  
**DEPARTMENT: PATHOLOGY & LABORATORY MEDICINE**  
 PROJECT TITLE: Persuading PDC to Cross-Present Tumor Antigen to CTL  
 INSTITUTION: New Jersey Commission on Cancer Research  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$50,000

**PI: VICTORIA PRINCE**  
**MENTOR: ANDREW THOMAS, PH.D., PROFESSOR & CHAIR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: The Role of cAMP Signaling Changes in Alcoholic Liver Disease  
 INSTITUTION: National Institute on Alcohol Abuse and Alcoholism  
 DURATION OF AWARD: 4 years  
 TOTAL AMOUNT OF AWARD: \$135,496

**PI: TODD P. STITIK, M.D., PROFESSOR**  
**DEPARTMENT: PHYSICAL MEDICINE & REHABILITATION**  
 PROJECT TITLE: Musculoskeletal Medicine Fellowship Training Program  
 INSTITUTION: Allergan, Inc.  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$40,000

**PI: AMBER ZIEGLER**  
**MENTOR: STEVEN W. LEVISON, PH.D., PROFESSOR**  
**DEPARTMENT: NEUROLOGY & NEUROSCIENCES**  
 PROJECT TITLE: IGF2 AND NEURAL STEM CELL HOMEOSTASIS  
 INSTITUTION: Ruth L. Kirschstein National Research Service Award  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$91,077

**SHARED INSTRUMENT AWARDS**

**PI: ROBERT DONNELLY, PH.D., DIRECTOR**  
**DEPARTMENT: MOLECULAR RESOURCE FACILITY**  
 PROJECT TITLE: Deep Sequencing Analysis of Cancer Phenotypes  
 INSTITUTION: New Jersey Commission on Cancer Research  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$500,000

**PI: PADMINI SALGAME, PH.D., PROFESSOR**  
**DEPARTMENT: MEDICINE**  
 PROJECT TITLE: B-D Facsaria for use in BSL-3  
 INSTITUTION: National Center for Research Resources  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$464,744

**PI: STEPHEN F. VATNER, M.D., PROFESSOR & CHAIR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: Vevo 770 High Resolution Imaging System  
 INSTITUTION: National Center for Research Resources  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$202,600

**MISC. STATE AND NATIONAL AWARDS**

**PI: SYLVIA CHRISTAKOS, PH.D., PROFESSOR**  
**DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**  
 PROJECT TITLE: Protection Against Experimental Autoimmune Encephalomyelitis by Calbindin-D28K  
 INSTITUTION: National Multiple Sclerosis Society  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$33,000

**PI: SERGEI KOTENKO, PH.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: BIOCHEMISTRY AND MOLECULAR BIOLOGY**  
 PROJECT TITLE: Inhibition of Type 1 and Type III IFNs by Poxvirus-Encoded Soluble Proteins  
 INSTITUTION: The Alliance for Lupus Research  
 DURATION OF AWARD: 4 years  
 TOTAL AMOUNT OF AWARD: \$489,202

**PI: NICHOLAS M. PONZIO, PH.D., PROFESSOR**  
**DEPARTMENT: PATHOLOGY & LABORATORY MEDICINE**  
 PROJECT TITLE: Influence of Material Cytokines Produced During Pregnancy on Effector and Regulatory T Helper Cells as Etiological Factors in Autism  
 INSTITUTION: Autism Speaks  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$330,000

**PI: VIJAYALAKSHMI SANTHAKUMAR, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: NEUROLOGY & NEUROSCIENCES**  
 PROJECT TITLE: Tonic GABAergic Inhibitor after Brain Injury: Role in Epileptogenicity  
 INSTITUTION: NJ Commission on Brain Injury Research  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$449,424

**PI: JANINE SANTOS, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**  
 PROJECT TITLE: Molecular Mechanism of hTERT Function in Mitochondria  
 INSTITUTION: United States Army  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$90,000

**PI: MARIA L. SOTO-GREENE, M.D., VICE DEAN, NJMS & PROFESSOR OF MEDICINE**  
**DEPARTMENT: NJMS-OFFICE OF THE VICE DEAN**  
 PROJECT TITLE: Centers of Excellence  
 INSTITUTION: DOHHS-Health Resources and Services Administration  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: 2,170,990

**NJCCR AWARDS**

**PI: BETSY BARNES, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**  
 PROJECT TITLE: New Routes to Apoptosis that are P53-Independent  
 INSTITUTION: New Jersey Commission on Cancer Research  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$264,018

**PI: ROBERT DONNELLY, PH.D., DIRECTOR**  
**DEPARTMENT: MOLECULAR RESOURCE FACILITY**  
 PROJECT TITLE: DEEP SEQUENCING ANALYSIS OF CANCER PHENOTYPES  
 INSTITUTION: New Jersey Commission on Cancer Research  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$500,000

**PI: LAWRENCE E. HARRISON, M.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: SURGERY**  
 PROJECT TITLE: Induced Oxidative Stress with Hyperthermic Perfusion  
 INSTITUTION: New Jersey Commission on Cancer Research  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$133,850

**PI: PAULETTE STANFORD, M.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: PEDIATRICS**  
 PROJECT TITLE: STOP Mobile Counseling and Testing Unit Program  
 INSTITUTION: New Jersey Department of Health and Senior Services  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$327,050

**PI: ROBERT WIEDER, M.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: MEDICINE**  
 PROJECT TITLE: Reactivation of Breast Cancer Micrometastases by Senescent Bone Marrow Stroma  
 INSTITUTION: United States Department of Defense  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$578,347

**PI: LIZHAO WU, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: Synergistic Role of Retinoblastoma and E2F8 in Maintaining Normal Hematopoiesis and Preventing Hematologic Malignancies  
 INSTITUTION: Leukemia Research Foundation  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$100,000

**PI: WALTER M. ZAHORODNY, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: PEDIATRICS**  
 PROJECT TITLE: Enhancing Current Capacity for Surveillance of Autism Spectrum Disorders in New Jersey  
 INSTITUTION: Centers for Disease Control and Prevention  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$400,000

**PI: MARCO A. ZARBIN, M.D., PH.D., PROFESSOR & CHAIR**  
**DEPARTMENT: OPHTHALMOLOGY**  
 PROJECT TITLE: National Eye Evaluation Research Network Clinical Treatment and Evaluation Center  
 INSTITUTION: The National Neurovision Research Institute  
 DURATION OF AWARD: 3 years  
 TOTAL AMOUNT OF AWARD: \$580,035

**PI: ROBERT WIEDER, M.D., ASSOCIATE PROFESSOR**  
**DEPARTMENT: MEDICINE**  
 PROJECT TITLE: UH Cancer Center Clinical Research Program-UMDNJ-NJMS  
 INSTITUTION: New Jersey Commission on Cancer Research  
 DURATION OF AWARD: 1 year  
 TOTAL AMOUNT OF AWARD: \$476,340

**PI: LIZHAO WU, PH.D., ASSISTANT PROFESSOR**  
**DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**  
 PROJECT TITLE: The Role of the E2f3 Locus in Myc-Triggered Prostate Cancer  
 INSTITUTION: New Jersey Commission on Cancer Research  
 DURATION OF AWARD: 2 years  
 TOTAL AMOUNT OF AWARD: \$269,139

**NJMS FUMDNJ AWARDS****PI: NANCY CONNELL, PH.D, PROFESSOR****DEPARTMENT: MEDICINE**

PROJECT TITLE: Low Oxygen Recovery Assay (LORA) and TB Drug

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$25,000

**PI: MARIANA DELORENZO, PH.D, INSTRUCTOR RESEARCH TRACK****DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**

PROJECT TITLE: Effects of Caloric Restriction (CR) on Mammary Tumor

Growth and Metastases

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$25,000

**PI: PATRICIA FONTAN, PH.D, ASSISTANT PROFESSOR****DEPARTMENT: MEDICINE**

PROJECT TITLE: Analysis of the Molecular Mechanisms of Drug Tolerance

in Mycobacterium Tuberculosis

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$25,000

**PI: GYORGY HASKO, PH.D, ASSOCIATE PROFESSOR****DEPARTMENT: SURGERY**PROJECT TITLE: CB<sub>2</sub> Cannabinoid Receptors in Trauma and Sepsis

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$25,000

**PI: NICHOLAS ILLSLEY, PH.D, PROFESSOR****DEPARTMENT: OB/GYN**

PROJECT TITLE: Folate Receptor Autoantibodies and Placental

Uptake of Folate

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$25,000

**PI: ROBERT LEDEEN, PH.D, PROFESSOR****DEPARTMENT: NEUROLOGY & NEUROSCIENCES**

PROJECT TITLE: Role of GM1 Ganglioside in Neuronal Function

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$25,000

**PI: CAROLYN SUZUKI, PH.D, ASSISTANT PROFESSOR****DEPARTMENT: BIOCHEMISTRY & MOLECULAR BIOLOGY**

PROJECT TITLE: The Mitochondrial ATP-dependent Lon Protease in Cardiac

Ischemia and Hypertrophy

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$25,000

**PI: IAN WHITEHEAD, PH.D, ASSOCIATE PROFESSOR****DEPARTMENT: MICROBIOLOGY & MOLECULAR GENETICS**

PROJECT TITLE: Exploring a Role for Ubiquitin Binding in BCR/ABL-mediated Leuke-

mogenic Activity

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$25,000

**PI: LIZHAO WU, PH.D, ASSISTANT PROFESSOR****DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE**

PROJECT TITLE: Synergistic Role of E2F8 and Rb in the Control of Hematopoiesis

and Hematologic Malignancies

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$25,000

**PI: DAVID DUBNAU, PH.D, PROFESSOR****DEPARTMENT: MICROBIOLOGY & MOLECULAR GENETICS****PI: MATTHEW NEIDTICH, PH.D, ASSISTANT PROFESSOR****DEPARTMENT: MICROBIOLOGY & MOLECULAR GENETICS**

PROJECT TITLE: Purification and Crystallization of MecA-ClpC Complexes

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$35,000

**PI: KOSAKU IWATSUBO, PH.D, ASSISTANT PROFESSOR****DEPARTMENT: CELL BIOLOGY & MOLECULAR MEDICINE****PI: MARTHA NOWYCKY, PH.D, PROFESSOR****DEPARTMENT: PHARMACOLOGY & PHYSIOLOGY**

PROJECT TITLE: Regulation of Melanoma Cell Migration by Epac/Calcium

Pathway

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$35,000

**PI: ABRAHAM PINTER, PH.D, PROFESSOR****DEPARTMENT: MICROBIOLOGY & MOLECULAR GENETICS****PI: SALLY HODDER, MD, PROFESSOR****DEPARTMENT: MEDICINE**

PROJECT TITLE: Determining HIV-1 Subtype C Prevalence in a Newark,

New Jersey Cohort

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$35,000

**PI: TERESA WOOD, PH.D, VICE CHAIR FOR BASIC SCIENCE RESEARCH****DEPARTMENT: NEUROLOGY & NEUROSCIENCE****PI: UTZ HERBIG, PH.D., ASSISTANT PROFESSOR****DEPARTMENT: MICROBIOLOGY & MOLECULAR GENETICS**

PROJECT TITLE: GF Signaling Promotes Bypass of Cellular

Senescence During Early Stage of Breast Cancer

DURATION OF AWARD: 1 year

TOTAL AMOUNT OF AWARD: \$35,000

## ORSP ALUMNI



August 2009 farewell get together with Faculty and Staff for Regeane and Margaret.

Regeane Frederique, Assistant Manager ORSP, recently left NJMS to take a position at FEMA. Best wishes to Regeane in her new position.

Congratulations to Margaret Brinley, ORSP Summer Student Research Program Assistant, who is now a student at the UMDNJ School of Nursing.

We are currently advertising for a new ORSP Grants and Contracts Administrator.

## ORSP MANAGEMENT

**Gwendolyn M. Mahon, Ph.D.**

**Assistant Dean for Research Administration**

Telephone: 973-972-1591/E-mail: mahongm@umdnj.edu

**Sharon McFarlane  
Manager**

Telephone: 973-972-0281/E-mail: mcfarlsb@umdnj.edu

Questions/Comments regarding the ORSP Newsletter  
contact Giovanna Comer at: 973-972-7090/E-mail: comergi@umdnj.edu

## ORSP GRANT ADMINISTRATOR DEPARTMENT ASSIGNMENTS

**Sharon McFarlane**-Direct Extension: 973-972-0281

Email: mcfarlsb@umdnj.edu

Biochemistry, Cell Biology, Liver Center, Neurosciences, Psychiatry, Radiology, and Surgery

**Letitia Dean**-Direct Extension: 973-972-0283

Email: deanle@umdnj.edu

Academic Administration, Family Medicine, Neurological Surgery, Ophthalmology, Pathology and Physical Medicine

**Cecilia Areco**-Direct Extension: 973-972-4569

Email: arceoce@umdnj.edu

PHRI, Pediatrics, Medicine, and Microbiology

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## ORSP MISSION STATEMENT

Research is an integral component of the New Jersey Medical School (NJMS) and its mission as a healthcare 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.