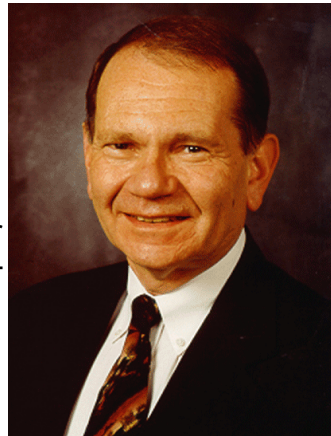


# HSC E-NEWS

Norman H. Edelman, M.D., Vice President, Health Sciences Center & Dean, School of Medicine

MAY, 2005 - Stony Brook University Health Sciences Center

Most people forget that the skin is the body's largest organ. Under normal conditions, our skin can mend itself. However, if skin is too badly burned, it is unable to repair itself without help. One way to promote healing is by covering burns and wounds with grafts called allografts - skin from an organ donor. When a patient's own skin is used for grafting, it is called an autograft. People are often surprised to learn that our School of Dental Medicine houses our Living Skin Bank, a laboratory facility dedicated to producing human skin allografts and autografts for clinical application at Stony Brook University Hospital. Our Skin Bank has produced both cultured epithelial allografts and cultured epithelial autografts. In order to produce autografts, a biopsy is obtained from the patient (about the size of half a dime) and cells (keratinocytes) are derived from the epidermis into sheets. To produce the required number of sheets (surface area of an adult - 2 square meters) takes about 17-21 days.



Although the Living Skin Bank is an unusual component of a dental school, it embodies many aspects of the school's mission, especially the need to focus on the total well being of every patient. The decision to create the Living Skin Bank came in the late 1980's after a publication demonstrated that skin cells (epithelial cells) grown in the laboratory had been used as a life-saving therapy on two children that had sustained third degree burns over most of their body surfaces. The Burn Center at Stony Brook University Hospital, believed that new therapies including skin autografts were needed on Long Island to treat burn victims. Because of the availability of several research laboratories within a newly constructed addition at the School of Dental Medicine, it seemed like the logical setting for the Living Skin Bank. Contributing to the decision was the presence of Lorne Taichman MD, PhD, an established scientist in keratinocyte biology and a professor in the School's Department of Oral Biology and Pathology. Under leadership of Dr. Israel Kleinberg, the Living Skin Bank was located within the Department of Oral Biology and Pathology and became fully operational in 1990 with the recruitment of Dr. Marcia Simon as Scientific Director. Dr. Simon had been a post-doctoral fellow with Dr. Howard Green at Harvard Medical School and was part of the team that produced the first grafts used on the two young children that were being treated at the Shriners' Burn Hospital in Boston.

Both the Living Skin Bank and the Burn Center play crucial roles on Long Island. The Living Skin Bank is prepared to gear up on short notice.

*Continued on page 2*

# THE LIVING SKIN BANK

*Continued from page 1*

A prime example occurred within hours of the attack on the World Trade Center, when Dr. Marcia Simon directed a rapid increase in the production of cultured skin allografts, that were to ready for any survivors moved to the Burn Center. Volunteer firefighters throughout the region have championed these facilities through their donations and political support. Funding for the Living Skin Bank has been provided by State Senator Kenneth LaValle, Chairman of the New York State Senate Higher Education Committee, who provided the initial seed money and assigned high priority to continued funding. The National Institutes of Health, the Department of the Army, New York State, and various commercial enterprises are among the sources of funding support. Through continued research, better and more rapid methods will be found for the treatment of epidermal wounds. In addition, through a more complete knowledge of the nurturing interactions between epithelium and connective tissue, new insights into the development and treatment of oral squamous carcinoma and other mucosal diseases will be revealed. Success has only been achieved through the combination of basic research and clinical skills of a broad team of individuals including members of the Skin Bank, the Burn Center, and the Departments of Oral Biology and Pathology, Surgery, Dermatology, and Emergency Medicine.

Since its inception, the Living Skin Bank has been involved in the development of new biologic dressings that can be used "off-the-shelf" for the treatment of partial thickness burns and made available for patient treatment within minutes and has carried out collaborative extramurally funded research on wound healing, hypertrophic scar, and keloid formation. Most recently, the Living Skin Bank has been developing a "Universal Donor" keratinocyte for the treatment of full thickness skin injury. Recent advances in the treatment of burns have led to the increased survival of extensively burned patients. The most recent plans now include the construction of a suite of rooms ("clean rooms") that will allow development of cell-based materials to be carried out in full compliance under new and expanded Federal regulations. This will ultimately speed the movement of therapies from "bench to bedside". Again, through the efforts of Senator LaValle, initial funding has been awarded for the construction costs of the "clean room", and the Volunteer Firefighters of Suffolk County have joined in their continued support of the Living Skin Bank by awarding funding towards the new required equipment.

Dr. Simon has experienced the personal reward of bridging research and clinical application, a feeling that continues to be reinforced by her experiences at Stony Brook and one that provides strong motivation for her work. As a faculty member with expertise in cell biochemistry and biology, Dr. Simon frequently lectures in the Oral Biology curriculum as well as in several post-doctoral programs. Her research experience has also led to formal and informal collaborative research projects with other dental school faculty in such areas as epithelial gene therapy, wound healing, squamous cell cancer, and mucosal cell/connective tissue interactions. Dr. Simon's laboratory conducts research in retinol metabolism, squamous cell carcinoma, stem cell biology, and epithelial cell biochemistry. Additionally, the Living Skin Bank supports the training of and technology transfer of cultured epithelial graft/dressing production to scientists and physicians from University Hospital and from around the world (Brazil, Spain, Israel, Yugoslavia, Philippines and Korea) with the aim of enhancing burn care worldwide. Dr. Simon has instructed high school, undergraduate, graduate, and post-graduate students, residents, and clinical fellows. She has also trained physicians and scientists from around the globe in order to facilitate the establishment of similar facilities worldwide.

Cell based therapies have been used to decrease the mortality and morbidity of burn victims. The Living Skin Bank is developing new therapies for improving the long-term function and appearance of the healed or replaced skin cover as well as the patient's quality of life.

# FACULTY MEMBERS BESTOWED SUNY DISTINCTIONS

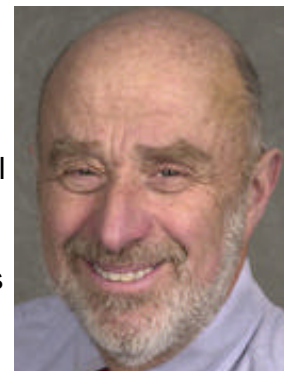
Dear HSC Faculty, Staff, and Administration,

Academic prowess and research scholarship are the hallmarks of the Health Sciences Center. Therefore, it gives me great pleasure to inform you of the actions by the SUNY Board of Trustees at their meeting of April 12, 2005. Two faculty members here at the HSC were bestowed distinctions that again prove what a truly outstanding group of people we have here.



Arthur A. Stone, Ph.D., School of Medicine, Department of Psychiatry and Behavioral Sciences, was awarded the title of SUNY Distinguished Professor. Trained at Stony Brook in clinical psychology, Dr. Stone has brought many scientific disciplines (endocrinology, immunology, infectious disease, survey research, and cognitive psychology) to bear on problems in biomedical and behavioral research. He has used this multidisciplinary approach skillfully to examine two broad scientific areas: the potential of psychological stress and coping to influence physiological mechanisms and disease symptoms, and the psychological processes underlying peoples' self-reports of their everyday experiences. Dr. Stone's seminal investigations, conducted over nearly three decades, have contributed significantly to our present understanding of these areas. Through his ability as a researcher, scholar, and Stony Brook citizen, he has helped raise the department's national and international prominence to one of the best in the nation. His research success, his mentoring of students and his interaction with faculty bring rich returns to the department and Stony Brook. His successful grant activity has propelled his department to a global leadership role in behavioral medicine and self-report research.

Secondly, H. Barry Waldman, D.D.S., M.P.H., Ph.D., School of Dental Medicine, Department of General Dentistry, was awarded the title of Distinguished Teaching Professor. Over the past 35 years, Dr. Waldman's distinguished career of service to the University with appointments to multiple committees and advisory boards have developed and shaped the Dental School, as well as the HSC health professions programs. His tenure here has included the following positions: Chair, Department of Dental Health 1973-1995, and Assistant Dean for Student Affairs 1977-1979 and 1980-present College Panel Chancellors Advisory Committee. He is probably best known for his commitment to student education, his enthusiastic and engaging lecture style, and his dedication to the publication of current and controversial issues related to society and health care.



I am certain you join me in congratulating them in achievement of their recognition.



**The NIH General Clinical Research Center  
(GCRC)**

**and**

**The Department of Medicine  
Seminar Series**

**Insulin Resistance and Endothelial Dysfunction:  
The Road Map to Cardiovascular Disease**

**Eugenio Cersosimo, MD, PhD  
Medical Director, Clinical Research  
Texas Diabetes Institute  
University of Texas at San Antonio**

**Friday, May 13th, 2005**

**HSC L16 - Room 025  
Refreshments begin 3:45pm  
Seminar begins at 4:00pm**

# NEWS FROM THE SCHOOLS

## **DENTAL MEDICINE**

The Reach, launched January 2005, is a web site that provides an extensive information database about the dental profession and education to address under-represented minorities. What makes The Reach possible is the increasing trend of online applications for college admission and the great numbers of adolescents who have access to the web. The Reach works by connecting to newly accepted students to the Stony Brook's undergraduate campus who have identified themselves as under-represented students. The student receives an email "greeting" letter that includes a link to The Reach web page with the hope that the student will visit and explore The Reach. The Reach hopes to overcome two well-recognized obstacles about the dental profession: poor access to timely information and access to professional students and dentists who can guide the student. The Reach program is intimately connected to the newly developed Minority Dental Student Association whose members provided the content and web design for The Reach. Next year, The Reach will be introduced to regional colleges and universities after which the program will be introduced to the school districts of Long Island and NYC. Although we desire to increase the enrollment of under-represented dental students at Stony Brook, this resource will be widely introduced to hopefully address this concern for all dental schools.

For more information, please visit:

<http://www.stonybrook.edu/ugadmissions/postcards/2004-2005/dentaloutreach.shtml>

For more information on The Reach please see the website:

<http://www.thereachonline.org/>

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## **NURSING**

The Eastern Nursing Research Society 17th Annual Scientific Sessions, held in New York City, presented our Junior Nursing students, Kerri-Ann Bell, Danielle Bellucchi, Tori Calder, and Patricia Senelon with 3rd Place Award for Poster presentation of all posters submitted by nurses. Congratulations to them and their mentors, Maryann Forbes, Clinical Associate Professor and Carol DellaRatta, Professor.

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## **MEDICINE**

At the April 13, 2005, meeting of the RRC for Institutional Review Committee, the School of Medicine was awarded Favorable Decision by the ACGME with a four year accreditation cycle.

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The Office of Medical Education received a grant for \$150,000 from MetLife Foundation supplementing the grant from the Arthur Vining Davis Foundations. This supports Medical Education involvement in the program on Enhancing Education for the Clinical Transaction which is conducted jointly by the New York Academy of Medicine and the Association of American Medical Colleges.

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The following undergraduates work with faculty in the department of Medicine and are presenting at URECA's Celebration of Research and Creativity:

*Continued on page 6*



# NEWS FROM THE SCHOOLS

*Continued from page 5*

<b>Student Presenter</b>	<b>Project Title</b>	<b>Mentor</b>
Daniel English	Matrix Metallo-Proteinase-2in the Pathology of Cerebral Amyloid Angiopathy	William Van Nostrand
Amy Hua	The Effect of Nitric Oxide-Donating Aspirin on MAPK signaling in Human Colon Cancer Cells	Thomas R. Hundley
Mansoor Khan	Purifying Human IQGAP2 using an E. Coli expression vector and nickel columns	Wadie Bahou

\*\*\*\*

Catalina Hoyos, a first year medical student in the Class of 2008, was accepted in a summer research program through the NIH in association with the University of Maryland. Catalina will be traveling to Brazil to do thyroid hormone research.

\*\*\*\*

Cedric J. Priebe, Jr., M.D., President of SOM Faculty Senate adds awareness of Faculty Senate activities with a better understanding of the multiple areas of involvement available in the academic life of the medical school is expressed.

A first presentation by Peter Williams, J.D.,Ph.D., Vice Dean for Academic Affairs follows:

## **Crafting a Strategic Plan for improving Medical Education at Stony Brook**

Once the School of Medicine had successfully weathered its most recent LCME accreditation review, the time seemed right for a systematic review of its curriculum and for adoption of a strategic plan directing its efforts through 2010. With that in mind, a faculty retreat was held in April at Raphael Vineyard in Peconic, NY. To prepare potential participants, website was created: [https://cbase.som.sunysb.edu/som/fac\\_retreat.cfm](https://cbase.som.sunysb.edu/som/fac_retreat.cfm) including a number-of-sources of information including articles about curricular trends, descriptions of our curriculum and those of other schools, and information about the performance of applicants, students and graduates. The postings were designed to help participants answer several important questions:

1. What do we consider the characteristics of an excellent medical school?
2. How does Stony Brook stack up against these criteria? What are the characteristics of our medical school? What sort of resident do we produce?
3. Should we change the design of our curriculum? What alternative curricular designs do other medical schools have? What are the national trends in medical education?
4. How do we determine whether changes are successful? How do we measure the success of our current or a redesigned curriculum?

These were the questions raised before the retreat. Our purpose on the day itself was to point beyond them toward particular plans of action. Since outcomes and decisions might affect students, alumni and educational administrators, there would be a benefit from the input of all three groups, 117 people participated. Most (82) were faculty from Stony Brook. Thirteen faculty from our affiliated institutions and 10 students were present as well. The Dean of the School of Medicine, the Dean of Nursing and Vice Dean for Education from Dental Medicine joined as did 12 other educational administrators. For a full summary of the retreat, please copy to your URL, [https://cbase.som.sunysb.edu/som/fac\\_retreat.cfm](https://cbase.som.sunysb.edu/som/fac_retreat.cfm), *Summary of the Raphael Retreat*, and click on topic..

At the conclusion of the retreat, focus groups were created to explore six different areas to address improvements in the curriculum: content of curriculum, structure of the curriculum, curriculum delivery, assessment, faculty development, and communications and culture. If you would like to join a group to assist in charting our future, please contact Patricia Bley by email or phone, 444-2098.

PLEASE SAVE THE DATE

**Smita N. Kumar**, a resident of **Preventive Medicine**, was one of 66 individuals honored with the American Medical Association Foundation's 2005 Leadership Award at its annual Excellence in Medicine Awards ceremony on March 13, 2005, in Washington, D.C. This award provides medical students, residents/fellows, young physicians, and international medical graduate physicians from around the country special training to develop their skills as future leaders in organized medicine. Recipients of the award demonstrate outstanding non-clinical leadership skills in advocacy, community service and/or education.

**Shai Gavi, Post Doctoral Associate, of Pharmacology and David Tegay, Assistant Professor of Clinical Pediatrics**, have been selected for Clinical Scholar Awards. Dr. Gavi will receive 2 years of funding for his proposal on "*Insulin Resistance in Aging*" and Dr. Tegay will receive one year of funding for his proposal on "*Genomic Variation in Developmental Disability*."

**Jedan P. Phillips, Assistant Professor of Clinical Family Medicine**, will be awarded with the Hope Award for 2005, by the American Cancer Society, at the Relay for Life.

**Anthony Szema, Assistant Professor of Medicine/Surgery**, has been awarded an unrestricted educational grant for Visiting Professors in Allergy, Asthma, and Immunology. This award is supported by a Merck Continuing Education Grant.

**Lillian Pliner, 1980 SOM alumni, and Assistant Professor of Medicine at UMDNJ/ NJMS**, is the recipient of the 2005 Leonard Tow Humanism in Medicine Award presented by the Arnold P. Gold Foundation. This award "recognizes a faculty member for excellence in both compassionate patient care and scientific achievement."

### SAVE THE DATE

MEDICAL STAFF ANNUAL MEETING

JUNE 1, 2005

6:00 p.m.

OLD FIELD CLUB

### Q& A

Good communication is two way. Therefore, if you would like to comment respond to topics, or have news to share: [HSC\\_VP@notes.cc.sunysb.edu](mailto:HSC_VP@notes.cc.sunysb.edu). Suggestions for future topics are always welcome, as well. Please feel free to email this publication to others who might be interested in what is happening at the Health Sciences Center.

#### May 11

"Exploring the Basis of Plasticity in Neuromuscular Transmission."

Gary Sieck, Professor & Chair. Physiology & Biomedical Engineering, Mayo Clinic. For info call 631-632-2302 or [www.bme.sunysb.edu](http://www.bme.sunysb.edu).

#### May 13

Annual Nursing Recognition Awards Ceremony, Galleria HSC L3, 3:00-5:00 p.m.

#### May 19

**SOM Convocation**, Main Stage, Staller Center, 10:00 a.m.

**Doctoral Graduation and Hooding Ceremony**, Main Stage, Staller Center, 2:00 p.m.

#### May 20

**SON Convocation**, Main Stage, Staller Center, 8:30 a.m.

**SHTM-Health Sciences Program Graduation**, Pritchard Gym/Indoor Sports Complex, 2:00 p.m.

**SDM Convocation**, SAC Auditorium, 4:30 p.m.

**SSW Convocation**, Main Stage, Staller Center, 4:00 p.m.

The State University at Stony Brook is an affirmative action/equal opportunity educator and employer. This publication is available in alternative format on request.