SCHOOL OF DENTAL MEDICINE • VOLUME 2 • NUMBER 2 • FALL 2001-2002

STONY BROOK DENTISTRY TODAY

Outreach at Pine Ridge

Page 10

STATE UNIVERSITY OF NEW YORK
STONY BROOK
HEALTH SCIENCES CENTER

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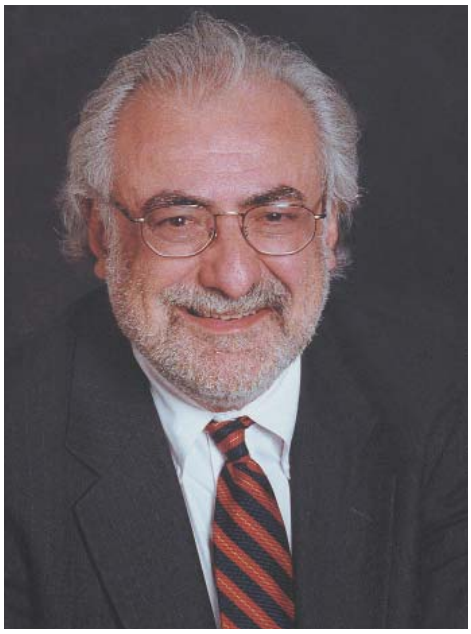
On the front cover:

Students from Stony Brook University's School of Dental Medicine traveled to the Pine Ridge Reservation in South Dakota to provide care to members of the Lakota tribe.

Photo by Dr. Edward Schlissel



Dean Barry Rifkin

From the Dean

Curiosity, unconventional thinking, and perseverance—these are the attributes of some of the great minds of our time, pioneers who have made lasting contributions to science and society and changed the course of humanity. Students and faculty at the School of Dental Medicine have had the good fortune to know such a special individual, Dr. Leo Sreebny, whose far-ranging accomplishments in the field of dental science have made him a pioneer among his contemporaries. This issue of *Stony Brook Dentistry Today* celebrates the accomplishments of Dr. Sreebny, who retired earlier this year and whose work during the last half of the 20th century led to the development of oral biology as a full-fledged academic discipline.

Dr. Sreebny's original studies helped to create a knowledge base to support the clinical dental curriculum. Like his pioneering colleagues, Dr. Sreebny shared a conviction that oral diseases could be conquered through a more complete understanding of the basic science of the tissues and organs of the oral cavity.

Since 1975, Stony Brook students have benefited from Dr. Sreebny's knowledge of salivary physiology and have experienced his enthusiasm for science and patient care. His presence as a role model for students and faculty alike will be greatly missed.

To honor Dr. Sreebny on his retirement, the School of Dental Medicine invited scientists and clinicians to assemble at Stony Brook to assess the current state of oral biology, and, more specifically, to review our knowledge of salivary dysfunction, especially in patients afflicted by Sjogren's Syndrome. To the many individuals who made the symposium a success and a memorable occasion for Leo, I extend my sincere thanks for a job well done.

In this issue we also report on a special extramural program to provide dental care to Native Americans in South Dakota. Under the leadership of Dr. Edward Schlissel, Chair of the Department of General Dentistry, and Vincent Verderosa, senior dental technician, senior dental students completed two-week working visits to the Pine Ridge Indian Reservation. I am proud to report that our students rendered quality dental care while gaining additional clinical experience in a unique cultural environment. The success of the first outreach program, as reported here, was repeated this past summer. By volunteering to spend most of their brief summer vacation in patient care, our students and their faculty mentors have brought relief to those in need and honor and credit to our school.

The School of Dental Medicine continues to be the major provider of care to special patients on Long Island. Dr. H. Barry Waldman's brief history of the School of Dental Medicine's Dental Care for the Developmentally Disabled Program, which appears in this issue, is a reminder of our long-standing commitment to special patients and of the leadership provided by Dr. Fred Ferguson and our clinical dean, Dr. Debra Cinotti.

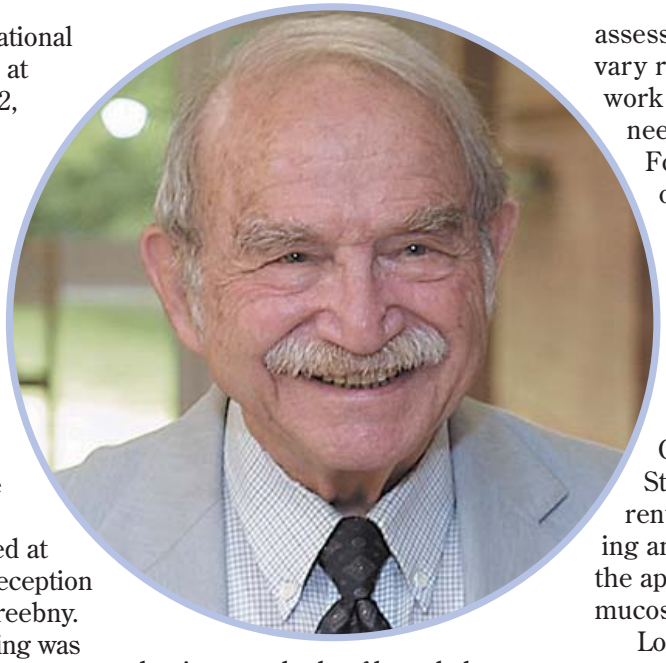
We are pleased to include a new feature in this issue, Alumnus In Focus, which highlights the achievements of one of our graduates. We selected Dr. Jeffrey Payne, Class of '86, for this feature's debut. Dr. Payne was recently named recipient of the University of Nebraska Medical Center's College of Dentistry's first endowed chair. I am sure that all members of the Class of 1986 are pleased to hear about Jeffrey's success at Nebraska.

I trust that all alumni and faculty of the School of Dental Medicine enjoy reading news from Stony Brook. All of us here at the School would like to hear from you. Please drop us a line and keep us posted on your professional and personal successes. And may Stony Brook's pioneering spirit remain with you always. ■

A Pioneer's Achievements

Educational Symposium Recognizes Dr. Leo Sreebny's Work

A special two-day educational symposium was held at Stony Brook, June 1-2, 2001, in honor of Dr. Leo Sreebny's groundbreaking work in the field of salivary biology and his clinical care of xerostomic patients. The program kicked off with a symposium, "The Art and Science of Oral Biology," which was conducted by a panel of internationally recognized oral biologists. On the eve of the first day of the symposium, participants, friends, and faculty assembled at the Three Village Inn for a reception and dinner in honor of Dr. Sreebny.



The highlight of the evening was the award of the first annual Leo M. Sreebny Visiting Scientist Award to Dr. Phillip Fox of the Carolinas Medical Center, Charlotte, North Carolina. This award will be given every year to an individual who has made outstanding contributions to the science of oral health. The recipient is invited to Stony Brook to lecture to students and faculty.

On the first day of the event, Dean Barry Rifkin, DDS, PhD, opened the symposium by noting the growing importance of oral biology as an academic discipline and recognizing the important work of Dr. Sreebny in the development of oral biology during the latter half of the 20th century.

Dr. Israel Kleinberg, Distinguished Professor of Oral Biology and Pathology at Stony Brook, led the first session with a discussion of the central role of oral biology in dental education. He described oral biology as the academic bridge between medicine and dentistry—a body of knowledge responsible for strengthening the connection between the mouth and the rest of the body. Dr. Kleinberg used examples of technologies developed at Stony Brook to illustrate how oral biology had entered a new phase of applied science.

Irwin Mandel, DDS, Professor Emeritus at Columbia University, also addressed the congregation and shared his recollections of research in oral biology over the past 50 years. He noted how the role of saliva has expanded from being the initiator of the digestive process to an essential protective secretion containing numerous antibacterial and growth factors.

Steven Schwartz, DDS, Assistant Clinical Professor of Children's Dentistry at Stony Brook, a long-time research collaborator with Dr. Sreebny, provided insights into Dr. Sreebny's achievements as a dentist, scientist, and humanist.

Later that afternoon, Dr. Fox assessed the current state of salivary research and looked ahead to work encompassing tissue engineering and gene therapy. Dr. Fox noted that the development of artificial organs, gene therapy, and the application of new anti-inflammatory agents and secretory stimulants offer great potential for the future treatment of xerostomia.

Jonathan Garlick, DDS, PhD, Associate Professor of Oral Biology and Pathology at Stony Brook, spoke about current research in tissue engineering and epithelial gene therapy and the application of this work to oral mucosal biology.

Lois Cohen, PhD, Associate Director for International Health at the National Institute of Dental and Craniofacial Research, closed the Oral Biology Symposium with a presentation titled, "Oral Health in the Global Community."

On June 2, a symposium on "Sjogren's Syndrome and Oral Health: Recent Advances in Diagnosis and Management" was held at the School of Dental Medicine. Sjogren's Syndrome is a chronic autoimmune disease affecting multiple exocrine secretory glands. Among its debilitating effects are dry mouth and eyes, and, in many patients, rheumatoid arthritis or other forms of autoimmune disease.

Following opening remarks by Dr. Fox, Harry Spiera, MD, of the Mount Sinai School of Medicine in New York, discussed the clinical management of the rheumatological manifestations of Sjogren's Syndrome. He observed that when clinicians considered a wide range of criteria in diagnosing

Dr. Irwin Mandel, Columbia University

Sjogren's Syndrome, the disease was more common than previously thought, affecting nearly 3.5 percent of the U.S. population. Indeed, early detection of the disease, before irreversible damage occurs in the salivary glands, continues to pose a major challenge to the medical and dental professions, according to Dr. Spiera.

The ramifications of Sjogren's Syndrome are far-reaching: In addition to potential damage to the salivary glands, the disorder can have a significant effect on the eyes. Janine A. Smith, MD, of the National Eye Institute, Bethesda, MD, discussed the management of ophthalmic manifestations of Sjogren's Syndrome.

Miriam Grushka, DDS, PhD, of the William Osler Health Center in Toronto, Canada, offered another insight on the disorder: She outlined the concept of an underlying sensory disorder affecting the taste system as the basis of dry mouth in patients diagnosed with Sjogren's Syndrome.

Athena Papas, DMD, PhD, of Tufts University College of Dentistry, Boston, ended the morning session with a discussion of the management of the oral manifestations of Sjogren's Syndrome. In the afternoon session, panel members were joined by John Wittpenn, MD (ophthalmology); Alan Kaell, MD (rheumatology); and Joan Broderick, PhD (psychiatry) for "Meet the Experts: The Sjogren's Patient Forum." ■

Dr. Lois Cohen, NIH *(top photo);* Dr. Jonathan Garlick, SDM

Dr. Phillip Fox *(inset);* Dr. Israel Klieinberg *(right)* presenting changes in the Oral Biology Curriculum.

Sreebny Honored at Retirement Dinner

The faculty of the School of Dental Medicine joined Dr. Leo Sreebny's friends and family at the Stony Brook Three Village Inn in January to honor him on the occasion of his retirement.

Born in New York in 1922, Dr. Sreebny's odyssey would take him across the country and back again. He was educated in Illinois before moving to the University of Washington, where he served on its faculty in various capacities for 18 years, finally returning to New York as Dean of Stony Brook's School of Dental Medicine in 1975.

Dr. Jonathan Garlick, Associate Professor of Oral Biology and Pathology, entertained those in attendance with a tongue-in-cheek presentation highlighting Dr. Sreebny's 56-year career. On a more serious note, Dr. Israel Kleinberg, a professor and Chair of the Department of Oral Biology and Pathology, reflected on Dr. Sreebny's contributions to the discipline of oral biology, specifically in the area of salivary research (see accompanying article). Dr. Sreebny is credited with making significant contributions to understanding the importance of systemic drugs in causing xerostomia (dry mouth) and is the founder of the Salivary Disorder Clinic in the School of Dental Medicine.

Dr. Sreebny's dental career began in 1945 when he obtained his DDS from the University of Illinois. Following a year as a dental resident at the Research and Education Hospital in Chicago and two years with the U.S. Navy Dental Corps, he earned an MS (Materia Medica and Therapeutics) degree from the University of Illinois in 1950. He subsequently received a PhD in pathology, also from the University of Illinois.

From 1961 to 1975, he served as Director of the Center for Research in Oral Biology and as a professor in the Department of Pathology in the School of Medicine at the University of Washington. In 1975, upon Dr. Howard Oaks' appointment as Vice President of the Health Sciences Center, Dr. Sreebny was recruited to the deanship at Stony Brook. He served in that capacity until 1979, before returning to full-time research and teaching as professor in the Department of Oral Biology and Pathology.

Dr. Sreebny served as principal investigator on numerous research grants from the National Institutes of Health. He has published five books and many papers on the biology of salivary glands and has held numerous offices in professional societies, serving as a consultant to the National Institutes of Dental Research. Dr. Sreebny held visiting professorships at Tel Aviv University; the University of the Witwatersrand, South Africa; and the World Health Organization in Geneva, Switzerland.

His many awards include the Anatomical Sciences Award (1968) and the Researcher of the Year Award (1989) from the International Association for Dental Research. In 1979, he received an award for his contributions to dental science from the City of Paris and in 1988 he was elected to the "List of Honor" of the Federation Dentaire Internationale in London. Counted as his most precious gifts, however, are his wife Mathilda, and his sons Oren and Daniel.

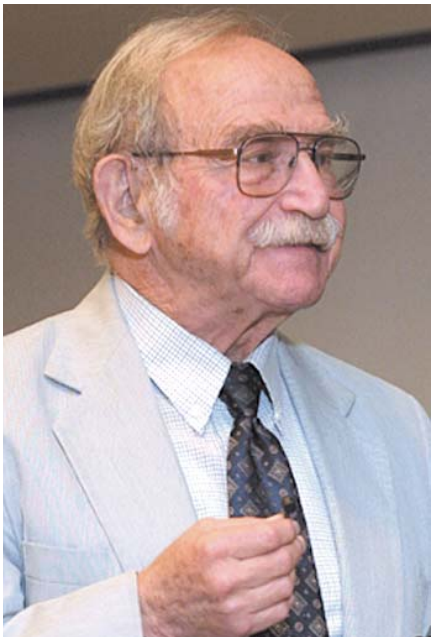
Following dinner, Dr. Sreebny addressed his friends and colleagues, emphasizing the rewards of years of research and the joy and satisfaction associated with patient care. He noted that he had learned much from his patients through the years. He will remain active in the School of Dental Medicine on a volunteer and part-time basis. ■

Dr. Leo Sreebny and his wife Mathilda enjoy the celebration at the Three Village Inn.

The Essential Fluid

Why Dentists Need to Become More Aware Of Salivary Dysfunction

When it comes to saliva, for the past two decades Leo Sreebny, DDS, PhD, has been a mouthpiece for physicians and dentists in publicizing the importance of this essential bodily fluid. Active in salivary gland research since 1950, Dr. Sreebny, a former professor in the Department of Oral Biology who is recognized internationally as an expert on salivary secretion, has written several



Dr. Leo Sreebny

books and more than 100 scientific papers on the subject.

Dr. Sreebny's research centers on saliva as a healing fluid and a potential indicator of systemic well being. Saliva is a complex secretion that performs numerous functions for preserving good dental and oral health. For instance, research has shown that persistent salivary deficiency, or dry mouth (xerostomia), can increase the occurrence of dental caries, alter taste sensation, make it difficult to swallow, and cause bad breath, burning tongue, and cracked lips, as well as lead to increased heartburn and esophagitis.

Who Gets Dry Mouth?

Nearly one-fourth of the general population suffers from dry mouth, according to several major studies. Xerostomia tends to affect women more than men (Fig. 1) and is a common condition among the elderly. To be exact, in the 75-year-and-older group the prevalence of dry mouth increases to about one in three.

Although there are many causes of oral dryness, most instances are brought about by systemic, not local, conditions and/or diseases, according to Dr. Sreebny. One of the major systemic factors that contribute to oral dryness is the intake of drugs. Of the approximately 400 to 500 most frequently prescribed drugs, 63 percent have the potential to cause xerostomia. The xerostomia-producing drugs tend to be antidepressant, antihistamine, antihypertensive, antipsychotic, and diuretic agents, with most of them acting antagonistically to block salivary secretion by directly affecting muscarinic surface receptors of acinar cells. Other medications indirectly alter intracellular signaling pathways that regulate the secretory process. Individuals who take multiple medications have an increased incidence of oral dryness. As a general rule, when drug use is discontinued, salivary function returns to its pretreatment level.

In 1986, Dr. Sreebny, together with Dr. Steve Schwartz ('85), compiled the *Reference Guide to Drugs and Dry Mouth*. The guide, which was updated in 1998, identifies the medications that can cause oral dryness and highlights those drugs that are particularly xerogenic.

For patients suffering from head and neck cancers, another major cause of xerostomia is therapeutic radiation. The reduction in salivary flow following radiation occurs early in the therapy and is usually permanent. For most irradiated patients, their quality of life becomes irreparably impaired.

Damage may be kept to a minimum, however, by administering pilocarpine to degranulate salivary acinar cells prior to radiation. Also, careful shielding of the head and neck at the time radiation is being applied may possibly prevent the occurrence of xerostomia.

Sjogren's Syndrome, which is prominent among the systemic diseases that cause dry mouth, is a chronic, multisystem autoimmune disorder. There are two forms: primary and secondary. In the primary form, dry mouth and dry eyes are the prominent symptoms. In the secondary form, the autoimmune disease rheumatoid arthritis accompanies one or both of these symptoms. Although nearly all Sjogren's Syndrome patients complain of dry mouth and other oral symptoms, dentists diagnose only 10% of these patients with the disorder, yet 60% reported that they had visited dentists during the year that a diagnosis was made.

Measuring Saliva

Residual saliva, the small amount that remains in the mouth following the completion of a swallow, is of particular interest to dental scientists. It sticks as a thin film to the mucous membranes and dental surfaces and flows into the interstices between the teeth. Some of the sub-

stances dissolved in this residual saliva, such as enzymes, antibacterial peptides, antibodies, etc., protect oral tissues. Other substances, such as sugars and carbohydrates, are potentially harmful.

This salivary film can be measured using an electronic fluid volume-measuring device called a periotron. With this instrument, Drs. Mark Wolff and Israel Kleinberg of Stony Brook's Department of Oral Biology and Pathology showed that in subjects with resting whole saliva flow rates equal to or less than 0.1 ml/min, the mean thickness of the palatal film was approximately 4 to 5 micrometers. In contrast, in patients who do not have xerostomia, the palatal film thickness measured between 14 and 18 micrometers.

The researchers believe that the onset of dryness corresponds to a saliva thickness of 10 micrometers or less on the posterior, hard palate. An unstimulated flow rate of whole saliva at or below 0.1 ml/min must be considered abnormal, according to Dr. Sreebny. When the stimulated flow rate of whole saliva is less than 0.5 ml/min, the reading should be considered abnormal.

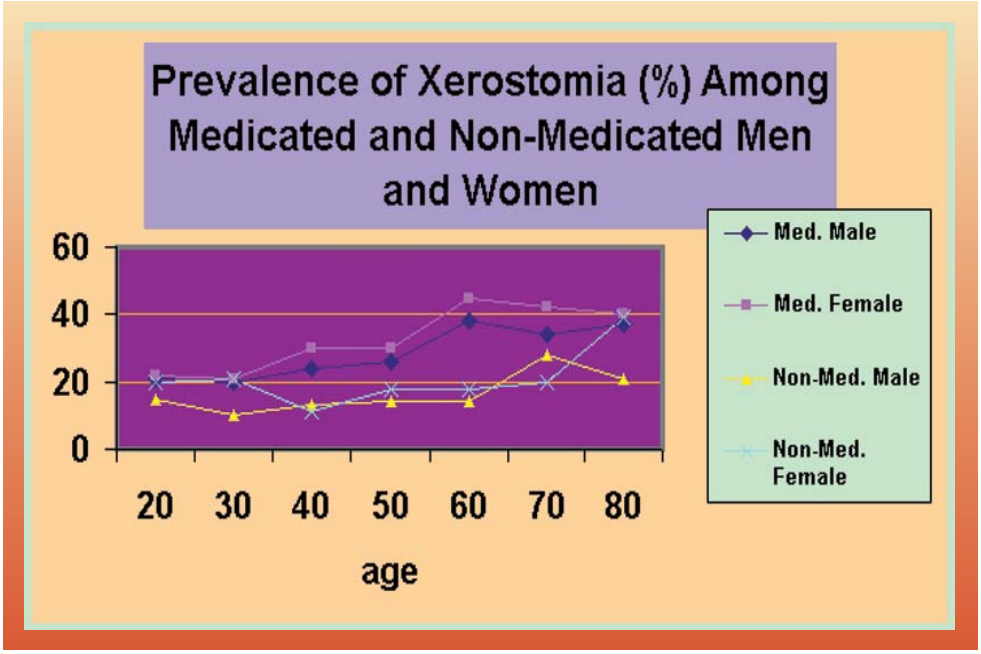
The Role of the Dentist

In taking a dental history, dentists should ask their patients questions about dry mouth, according to Dr. Sreebny. In patients who are prone to develop dental caries and those who are elderly and taking medication, it is important to obtain their salivary flow rates before beginning any treatment. Patients with abnormal salivary flow who complain of dry mouth and those at high risk for dental caries should receive instruction and/or medication to increase their resting levels of salivary flow. Secretions can be stimulated by mechanical (mastication) and chemical means and by drugs.

Mastication is the natural and best way to stimulate salivary secretion. Patients with abnormal flow rates should be instructed to eat foods that require mastication and to chew sugarless gum in between meals. Soft and liquid foods induce atrophy of the masticatory and salivary systems, thereby compounding the problems of dry mouth. Because saliva plays an important role in preventing dental decay and in facilitating swallowing and speech, dentists need to become more aware of salivary dysfunction and more involved in testing salivary function, according to Dr. Sreebny. He recommends that sialometry (flow rate measurements), pH measurements, buffer capacity, and microbiologic dipslide tests for lactobacilli, streptococcus mutans, and yeasts be performed in the dental office to obtain baseline data for diagnosis of xerogenic diseases and caries susceptibility. More complicated procedures, such as sialochemical, microbiologic, and immunologic tests, require that saliva be shipped to regional laboratories for analysis. Dr. Sreebny advocates the development of such laboratories in schools of dentistry throughout the country.

"Xerostomic patients must be treated with tender, loving care. They are often middle-aged or elderly and their quality of life has been seriously affected by this condition as they are often beset with serious systemic disease and emotional problems," said Dr. Sreebny. "Because of their advancing age, they are the least able—because of physical, emotional, and financial constraints—to care for their health."

For both dentists and their patients, knowing the facts about xerostomia—and possible treatments—makes having this unpleasant condition a whole lot easier to swallow. ■



Age, gender, and medication play a role in the onset of xerostomia.

Stony Brook Research Reveals Significant Benefits of Tetracycline Derivatives

New Therapies Could Combat Periodontal Disease and Other Ailments

A series of papers describing the use of tetracycline derivatives as therapeutic agents in combating osteoporosis, periodontal disease, and tumor angiogenesis—a tumor's ability to form new blood vessels—were recently presented during a symposium of the American Association for the Advancement of Science (AAAS) in San Francisco. Barry Rifkin, DDS, PhD, Dean of the School of Dental Medicine and Chair of Dentistry for AAAS, organized the symposium titled, "The Non-Antimicrobial Properties of Tetracyclines: New Therapeutic Uses."

Drs. Maria Ryan (left) and Lorne Golub

Using an animal model of osteoporosis as an example, Dr. Lorne Golub, DMD, MSc, MD (honorary), Professor of Oral Biology and Pathology, discussed how certain tetracycline derivatives simultaneously inhibit the breakdown of existing bone and stimulate the formation of new bone. He noted that this unique combination of properties has significant implications for the treatment of osteoporosis, a disease commonly affecting post-menopausal women characterized by a reduction in bone density and an increase in bone fractures. In human models, preliminary studies indicate that tetracycline derivatives may provide a new treatment for this debilitating disorder, which affects more than 8 million U.S. women.

The second presenter at the symposium, Maria Emanuel Ryan, DDS, PhD, Assistant Professor of Oral Biology and Pathology, discussed the role of Periostat—a form of doxycycline—to treat periodontitis. Dr. Ryan noted that while a bacterial infection is responsible for the initiation of the inflammation of periodontitis, the destruction of the bone and connective tissue itself is mediated by enzymes produced by the body in response to the bacterial infection. Dr. Ryan said that the anticollagenase property of Periostat inhibits the breakdown of connective tissue and bone, making it particularly effective in the treatment of periodontal disease. She also discussed the results of recent research that suggests a potential use of tetracycline derivatives to control tissue damage associated with diabetes.

Dr. Bruce Dezube of the Beth Israel Deaconess Medical Center and Harvard Medical School presented data from a human clinical trial of a non-antimicrobial tetracycline derivative, Metastat, in patients with HIV-related Kaposi's sarcoma. Dr. Dezube noted that in a small group of patients that had recurrent disease despite prior treatment with cytotoxic compounds, remission was achieved following treatment with Metastat. The drug's therapeutic effectiveness is believed to provide a direct, yet undefined, antitumor action and prevent tumor angiogenesis, a process that requires the breakdown of collagen.

The non-antimicrobial actions of the tetracycline derivatives in managing chronic periodontitis are significant in light of a recent Surgeon General's Report that recognized the importance of oral health in the overall general health and well-being of patients. That report outlined the correlation between chronic oral diseases, such as periodontitis, and other systemic disorders such as diabetes, heart and lung diseases, stroke, and premature births. "The ability to combat connective tissue destruction would benefit hundreds of thousands of patients with both oral and systemic diseases," Dean Rifkin said. ■

Dental Research Symposium

Eight Students Present Findings

Dr. Lorne Golub, Associate Dean for Research, welcomed faculty and students to the sixth annual Student Dental Research Symposium competition held on May 23, 2001. Dr. Golub, Chair of the symposium, emphasized the importance of student participation in dental research, not only for its direct and immediate educational benefit but also as a method of nurturing future dental scientists and educators.

Eight students reviewed the results of their research in ten-minute oral presentations and each presentation was followed by a five-minute question-and-answer session. All the participants received a certificate of excellence for research. The symposium was followed by a reception sponsored by **Dean Barry Rifkin**.

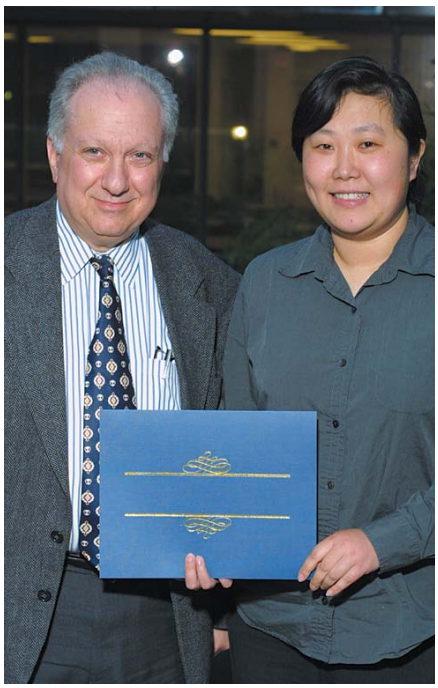
Drs. Stanley Alexander, Chris Cutler, Jerry Pollock, and **Mary Truhlar** judged the competition on the basis of underlying scientific merit, clarity of presentation, and the student's ability to field questions from the audience.

Four students were selected as having achieved special merit. **Ying Gu,** a third-year student in a combined DDS/PhD course of studies, won first prize for her research on chemically modified tetracyclines and how they inhibit tumor cell invasiveness. She won a travel grant from the American Dental Association Student Clinician competition, sponsored annually by the Dentsply company, to attend the 142nd Annual Session of the American Dental Association to be held in Kansas City, Missouri, where she will present her research. Her research mentor is **Dr. Sanford Simon**, Professor in the Department of Pathology in the Medical School.

Dimitri Kilimitzoglou and **Fred Stange**, both third-year students, won travel awards from the University of Tennessee and Dean Barry Rifkin to attend the Hinman Student Research Symposium, October 26-28, 2001, in Memphis, Tennessee. Both students conducted studies on the reaction of dental materials to various clinical procedures. **Joe DiBernardo**, a first-year student, won fourth prize—two tickets to a Broadway show—provided by the Dental Student Research Society for his studies of dental amalgam bonding agents. **Dr. Mark Wolff**, Professor of General Dentistry and Oral Biology, mentored all three of the above students.

On the National Front

Dr. Mouhab Rizkallah ('01) won third prize at the 2000 American Dental Association/Dentsply Student Clinician competition held in Chicago. His project, under the mentorship of Dr. Mark Wolff, was titled "Quantitative and SEM Evaluation of Bond Performance Utilizing Three Chairside Hard Reline Systems on Three Denture Surface Preparations."



Dr. Sanford Simon *(left)* and Ying Gu; *(right)* Fred Stange presents research findings.

Dr. Jonathan Garlick *(left)* and Michael Scalia

Fred Stange was one of six students chosen for a "Most Outstanding Presentation Award" from more than 80 students representing nearly all of the national dental schools at the annual meeting of the Hinman Dental Student Research Symposium. Dr. Wolff, Associate Professor of General Dentistry, directed the research titled, "The Effect of Seating Force on One- and Two-Step Vinyl Polysiloxane Impressions." Fred Stange will be returning to the Hinman competition again this year.

Saju Mathew received a 2000 Summer Dental Student Research Award from the National Institute for Dental and Craniofacial Research. His studies during the summer of 2000 were conducted at the Bethesda, Maryland, campus of the National Institutes of Health, as part of **Dr. Yoshi Yamada's** work on the Human Genome Project. He returned to the NIH campus during the summer of 2001 as a result of a second Summer Dental Student Research Award. ■

THE SIXTH ANNUAL STONY BROOK DENTAL STUDENT RESEARCH SYMPOSIUM

Presenters (In Order of Appearance):

Dimitri Kilimitzoglou ('02)
Advisor: Dr. Mark Wolff
"A Surface Profilometry Comparison of Six Techniques for Polishing Adjusted Porcelain"

Amy Truesdale ('02)
Advisor: Dr. Fred Ferguson
"Dental Student Response to an Oral Health Intake Record for Pediatric Patients"

Fred Stange ('02)
Advisor: Dr. Mark Wolff
"The Effect of Chemical Modification of Denture Teeth on Retention in Microwave Cure Acrylic"

Ying Gu ('02)
Advisor: Dr. Sanford Simon
"Inhibition of Tumor Cell Invasiveness by Chemically Modified Tetracyclines"

Joe DiBernardo ('04)
Advisor: Dr. Mark Wolff
"A Determination of the Effect of Amalgam Bonding Agents on the Diametrial Tensile Strength of Amalgam"

Saju Mathew ('02)
Advisor: Dr. Yoshi Yamada, NIH
"Identification of Novel Genes Expressed in Oral and Craniofacial Development"

Yael Freeman ('02)
Advisor: Dr. Mark Wolff
"An Evaluation of the Use of Hue Versus Value to Improve Shade Selection in Dental Accuracy"

Michael Scalia ('03)
Advisor: Jonathan Garlick
"Characterization of Basement Membrane Composition in an Improved Human Skin-Like Tissue Model"

Helping the Lakota of

Stony Brook Students Provide Dental Services to Needy Residents of Pine Ridge

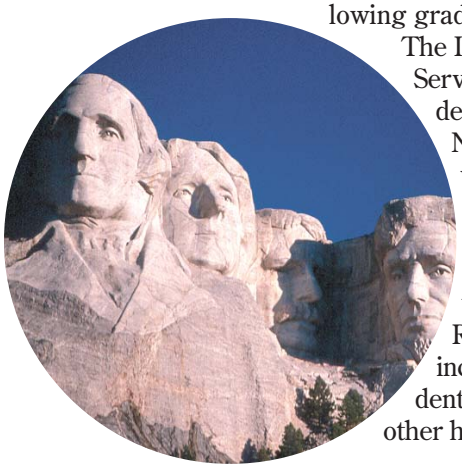
Tucked in the southwestern corner of South Dakota and surrounded by towns with intriguing and historical names, such as Buffalo Gap, Crazy Horse, Deadwood, Red Shirt, Potato Creek, and Wounded Knee is the Pine Ridge Reservation, an unexpected place to find Stony Brook dental students.

Led by Dr. Edward Schlissel, Chair of the Department of General Dentistry, and Vincent Verderosa, senior dental laboratory technologist, a team of five third-year students spent two weeks last summer rising at dawn and providing a full day of dental care to members of the Lakota tribe at the Indian Health Center at Pine Ridge, a facility operated by the Indian Health Service.

The clinical mission was highly successful on several fronts: Having Stony Brook dental students on hand at the Indian Health Center was mutually beneficial for the School of Dental Medicine; the Indian Health Service, which is a branch of the Public Health Service; and the students.

There is a severe shortage of dentists to provide care to the Pine Ridge region due to its remote location.

By establishing the Pine Ridge program, the Dental School provided a unique educational elective and valuable community service and served to reduce the backlog of untreated patients at the Indian Health Service Hospital. The students, most of all, benefited from the experience because they met the Lakota, gained clinical skills, and enjoyed the natural beauty of South Dakota. What's more, they learned about the possibility of a career in the Public Health Service's officer corps following graduation.



Mount Rushmore

The Indian Health Service's mission is to deliver health care to Native Americans, with most of the care administered at regional health centers such as the one at Pine Ridge. Its staff includes physicians, dentists, nurses, and other health care professionals. Doctors are appointed to the commissioned officer corps of the U.S. Public Health Service. Because of Pine Ridge's remote location, there is a severe shortage of dentists to provide care. Although the facility can accommodate ten full-time dentists, in 2000, there were fewer than three on staff and patients have had difficulty getting appointments for treatment other than for emergency visits. Patients needing dental prosthodontic care, for example, had a typical waiting period of six to 12 months for a first visit and long periods between visits before their cases could be completed.

(From left to right): Dr. Edward Schlissel, Eric Trivedi, Jennifer Sabol, Lon Lippman, Ian Silversmith, Hafsa Ali

Although the dental clinic at Pine Ridge is modern and well equipped for general dentistry and minor surgery, its laboratory is small and unable to process complete dentures. All supplies and fabrication equipment needed to be ordered, shipped, and assembled before the team arrived in Pine Ridge—a task handled by Verderosa. Several dental manufacturers, including Dentsply Corporation, GC America, Whip Mix Incorporated, and Zahn Dental, generously donated supplies and equipment.

Under the supervision of Dr. Schlissel, Verderosa, and members of the Pine Ridge dental staff, students Hafsa Ali, Lon Lippman, Jennifer Sabol, Ian Silversmith, and Erick Trevedi performed all clinical treatment and dental laboratory procedures. Each workday began at 7:30 a.m. and ended at 8:00 p.m. Patients visited in the morning and the students conducted laboratory work in the afternoon and evening. The students soon learned that being in Pine

South Dakota

Because of their hard work and long hours, procedures that usually took five visits, each two weeks apart, were completed in seven days.

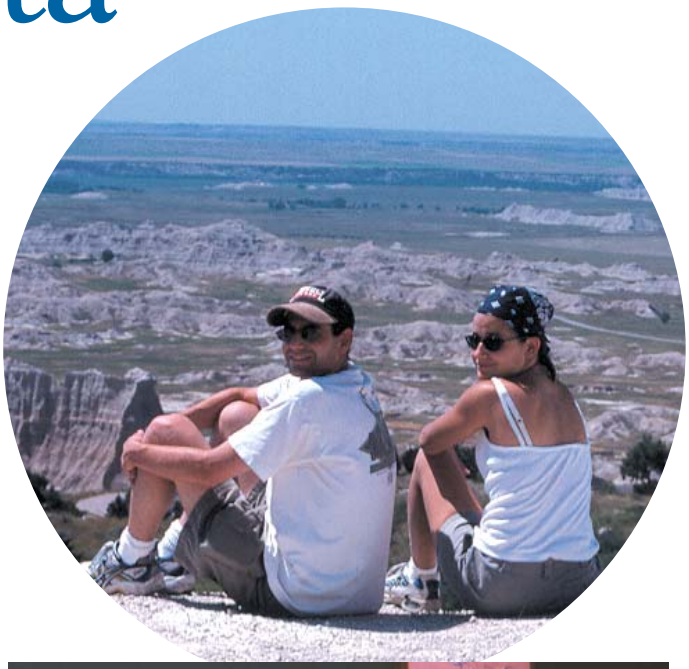
Ridge was equivalent to taking a compressed course in prosthodontics. Because of their hard work and long hours, procedures that usually took five visits, each two weeks apart, were completed in seven days.

The students quickly increased their skill, speed, and confidence as they fabricated, delivered, and adjusted dentures and partial dentures. They also completed relines and repairs for prostheses made before they arrived and created replacement teeth for children who had lost theirs in accidents. One rewarding moment occurred the day Lippman and Sabol delivered dentures to a husband and wife, both of whom had been without teeth for nearly one year. After they received their dentures, the couple could not stop smiling.

There are 40,000 Lakota in South Dakota. In 1851 the Lakota people signed the Fort Laramie Treaty that guaranteed them a large tract of land in South Dakota. Since then the Lakotas have been restricted to four significantly smaller land areas—the Crow Creek, Pine Ridge, Rosebud, and Standing Rock reservations. Although the people of the Pine Ridge reservation are poor, they are proud and the Stony Brook team was rewarded for its services.

During the last few days on the reservation, the group attended a dinner sponsored by the Pine Ridge staff at which hats with the Stony Brook logo were exchanged for T-shirts and certificates of appreciation. The members of the Stony Brook team were also invited to attend The Lakota Nation Annual Pow Wow in Pine Ridge. In addition to the activities with the Lakota, the Stony Brook team reserved weekend trips to national and state parks in the region, including visits to Mount Rushmore Memorial, Crazy Horse Monument, Custer State Park, Wind Cave National Park, Badlands National Park, and Wounded Knee.

The success of the first trip to Pine Ridge has encouraged 15 students to volunteer for the six available slots for the 2001 mission to the reservation. Criteria for selecting dental students include high academic standing, exceptional clinical skill in denture prosthodontics, and a willingness to forgo part of their summer vacation to work long days with patients and to spend evenings in the dental laboratory. ■



(Top photo): Ian Silversmith and Jennifer Sabol
(Center photo): Pine Ridge staff members Wanda Yellow Boy and Jodi Johns with Stony Brook students Jennifer Sabol, Erick Trevidi, Ian Silversmith, Lon Lippman, and Hafsa Ali
(Bottom photo): Vincent Verderosa, Pine Ridge patient, Hafsa Ali

A Hobby with Great Pots-ability

Pot Covers Prized by Collectors

Some people collect stamps, others prefer old coins. Dr. Paul Baer, a professor and past chairman of Stony Brook's Department of Periodontics, indulges another passion: dental memorabilia. Among his prized collections are mouth-shaped bottle openers, dental trade cards (a predecessor to the modern business card), and pot lids—the covers of old toothpaste containers. Dr. Baer said that he enjoys looking for toothpaste pot lids to add to his collections, whether he is browsing on the Internet or in an antique shop. "Each pot has its own history and it's fun to think about who used the toothpaste it contained—a famous actress? A notorious politician? A well-to-do family?" he asks. Dr. Baer recounts the history of toothpaste container lids…

Toothpastes, tooth powders, and other dentrifices were not widely used until the late 18th century in Britain. Local pharmacists dispensed these formulations in small stoneware jars covered with an oiled paper. The upper class applied the dentrifice with brushes; the underclass used their fingers. These early cleaning agents, which often contained abrasives such as brick dust or earthenware, were not especially palatable.

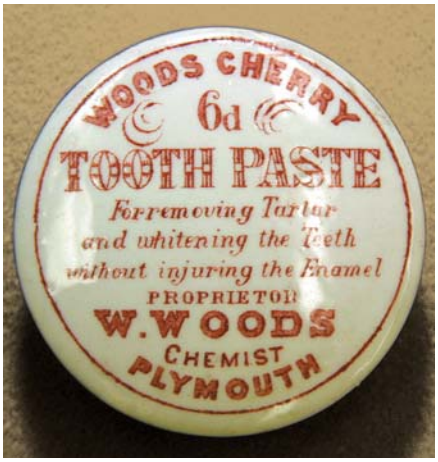
Around 1840, the oiled paper covers were replaced with stoneware covers, called pot lids. The advent of modern advertising coincided with the emergence of pot lids and brand-name toothpastes. Savvy retailers soon discovered that promoting their products on the toothpaste pot lids would increase brand awareness, and, subsequently, sales.

Similar pots were used to dispense other cosmetic and hygiene products, such as hair balm and perfumed pastes. These are also among the items collected by Dr. Baer.

The lids, which simply rested on top of the dental pot, came in various shapes. Most, however, were round and measured about two and a half inches in diameter. On top of the lid were the brand name of the toothpaste, the name and address of the supplier, and promotional claims. These stated that the products beautified and preserved the teeth and gums, whitened the teeth, removed tartar, and purified the breath—similar to claims made by modern toothpaste manufacturers.

Areca nut and cherry toothpastes were the most popular formulations in the late Victorian era. The areca nut is the seed of the areca cashew, or betel nut tree. The powdered areca nut was used as a remedy for worms, but most Victorians were probably unaware that they were being dewormed when they cleaned their teeth. Interestingly, there was no cherry flavoring in cherry toothpaste—the word cherry simply described the color, which was obtained by adding the pigment carmine.

In 1849, F. & R. Pratt started producing pot lids in different colors. These products, called Prattware, featured depictions of palm trees, the origin of the areca nut; figures such as George Washington for the American market; as well as scenes from the Great Exhibition at the Crystal Palace. Because they were expensive to produce, even at the height of their popularity in the 1860s, only a few companies distributed them. Today these rare, colored lids are among those most sought after by collectors in this country.



From the stoneware dental pot of the Industrial Age to the plastic tube of the "Disposable Age," toothpaste containers have undergone many changes in the past century.

Although modern toothpaste containers may not be as attractive or as intriguing in form as their predecessors, the product they contain tastes much better than the earliest formulations—a more logical choice for the general public, most of whom don't require a good deworming. ■

Photographs by Ash Kaushesh

Special People Caring for Special Patients

Stony Brook adapts to changing social policies and fills a critical need for training

—H. Barry Waldman, DDS, PhD

During the past 30 years, sweeping changes in social policies, favorable legislation for people with mental retardation and developmental disabilities (MR/DD), and class-action legal cases have led to the gradual deinstitutionalization of more than 80 percent of residents of many large state-run facilities. Tens of thousands of children and adults who, in the past, would have been placed in these institutions have been mainstreamed into local communities or live in community-oriented group residencies. The closures of Letchworth Village, the Long Island Developmental Center, and Willowbrook—to name a few institutions—reflect these national changes.

In the past, residents of state institutions received needed health services from practitioners employed by state agencies. However, many community residential facilities today are small and cannot provide adequate intramural services. The success of community-based programs depends on the availability of private practitioners who are trained and willing to provide crucial health services, including dental care.

Barbara Berentsen (left) and Dr. Fred Ferguson

More than half of U.S. dental schools offer fewer than five hours of classroom instruction on the care of developmentally disabled patients; three-quarters of those same schools report that no more than 5% of a predoctoral student's time is spent caring for special patients. Between limited training and inadequate reimbursement from Medicaid, the concept of caring for patients with MR/DD can be a hard sell to local dentists.

Stony Brook recognized early the critical need for special training. For more than 20 years, a combined predoctoral and postdoctoral program sponsored by the Department of Children's Dentistry, in cooperation with state agencies, has trained new practitioners and provided care to more than 4,000 special-needs patients. A Stony Brook survey has shown that nearly two-thirds of our graduates continue to provide care to patients with MR/DD.

The special training began in 1980 when Dr. Fred Ferguson of Stony Brook's Department of Children's Dentistry contacted three local state agencies serving children with developmental disabilities with a proposal to include the School of Dental Medicine in the care of those patients. The need for such specialized care was enormous, Dr. Ferguson soon learned: When a letter announcing the availability of special services was sent out to the community, an overwhelming number of families expressed their interest in the program. As part of their regularly scheduled clinic time, third-year dental students began the process of meeting the backlog of needed care.

By the early 1980s, with support from the New York Office of Mental Retardation and Developmental Disabilities, the Dental Care for the Developmentally Disabled (DCDD) program was established at Stony Brook. A series of new staff members joined the program, including program manager-dental hygienist Barbara Berentsen. The liaison, in-service, and educational arrangements that she developed with community programs now reach 19 state and voluntary agencies, 95 community group residencies, 37 family (foster setting) residencies, and hundreds of private families (more than one-third of the patients served live with their families).

In 1985, as part of a statewide initiative and with the support of state agencies for training two postdoctoral fellows per year, a 12-month postdoctoral fellowship providing care for individuals with developmental disabilities was established. For the next decade, dental fellows, dental assistants, an outreach-clinical dentist, a social worker, and office support staff coordinated the care in the dental care center provided by third- and fourth-year predoctoral dental students, postgraduate fellows, and residents in the Advanced Education in General Dentistry (AEGD) Program.

When necessary, fellows and residents in the operating-room facilities of Stony Brook University Hospital also provided care. In addition, in-service dental health education programs were introduced to hundreds of community group home staff and residents. An extensive educational agenda included emphasis on the special needs of patients who ranged from their pediatric to geriatric years, dental

phobias, emotional and psychiatric disorders, and medical emergencies.

During the mid-1990s, state funding for the fellowship program was discontinued, which resulted in the downsizing of some program personnel and activities; however, the fellowship program and many of the community programs have continued. Changes in Medicaid reimbursement, some outside source assistance, and support from the School of Dental Medicine have permitted the DCDD Program to remain self-sufficient.

The constant flow of youngsters and adults with MR/DD into the specialized dental care clinics is a continuing reminder of the needs and services that can and must be provided to patients who historically were hidden away in state institutions and the "backrooms" of family homes, according to Dr. Debra Cinotti, Associate Dean for Clinical Affairs. In recent years, Dr. Cinotti has taken greater responsibility for the management of the care of special patients.

Dr. Debra Cinotti

An article titled, "Access: Meeting the Needs of Special Patients," which was published in a 1998 issue of the *Journal of the American Dental Association*, stated that "the true measure of a society (and a profession) lies in the way it treats its older, handicapped, and disadvantaged citizen." When assessed by this standard, the School of Dental Medicine scores high marks. Its students and fellows have been special people in the lives of hundreds of MR/DD patients. ■

The Case of Patient D

Patient D was born in 1991. At birth he had a patent ductus arteriosus, was jaundiced, suffered from respiratory difficulties, and had an extra digit on each limb. Although no specific syndrome was identified, during his first years he experienced delayed development with multiple handicapping conditions.

Autism, mental retardation, auditory deficits, visual complications, and speech impairments became more pronounced as he grew into early childhood. According to D's mother, she had difficulty obtaining dental care for D because the dentists they had visited were uncomfortable handling D's complex dental and behavorial problems.

At eight years of age, he was brought to Stony Brook's Dental Care for the Developmentally Disabled Program (DCDD) as an uncooperative youngster with numerous carious lesions and fractured teeth. Working in the clinic and Stony Brook University Hospital operating-room facilities, program fellows and faculty member Dr. Fred Ferguson extracted severely broken teeth, filled carious lesions, implanted stainless steel crowns, and administered orthodontic care.

D is now a cooperative patient who regularly visits the clinic. As D grows older, his need for dental care will remain a challenge. As Dr. Ferguson explained, D's future dental health will be in large measure controlled by his daily oral hygiene, which must be carried out by a caring adult, such as D's mother.The DCDD Program at Stony Brook offers a solution for D and many other children and adults like him with similar dental problems.

Dr. Payne Named UNMC College of Dentistry Dixon Chair

Dr. Jeffrey B. Payne ('86) was recently named the recipient of the University of Nebraska Medical Center (UNMC) College of Dentistry's Dixon Chair in Dentistry. The F. Gene and Rosemary Dixon Chair was endowed by Dr. F. Gene Dixon, an alumnus of the University of Nebraska College of Dentistry and founder of the California Dental Service, formerly the Delta Dental Plan of California.

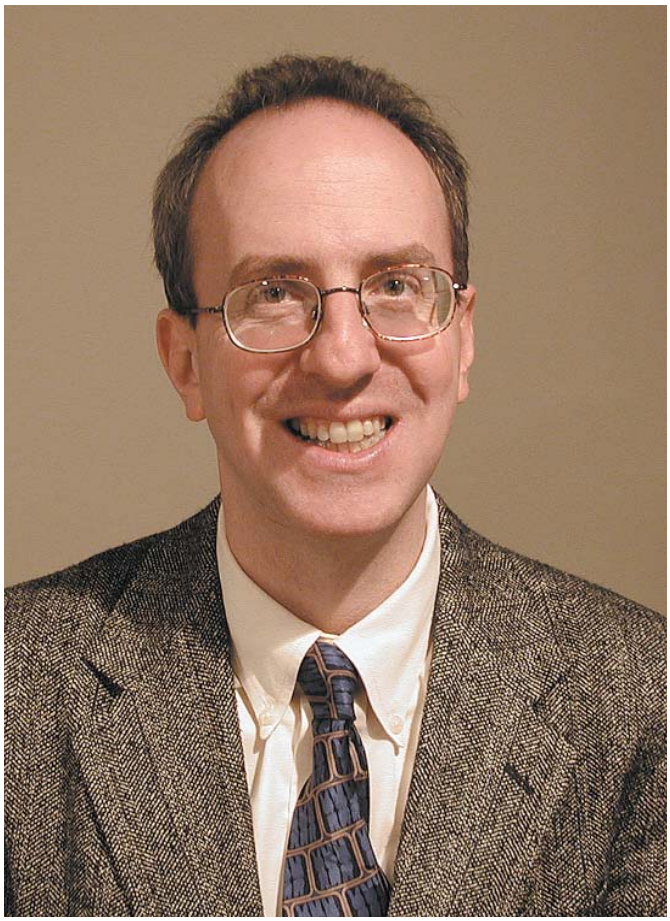
In announcing the appointment, John Reinhardt, DDS, Dean of the College of Dentistry, said, "Dr. Payne is an outstanding teacher and a productive researcher. He is very worthy of the honor of being named the first recipient of the Dixons' endowed chair."

Upon graduating from Stony Brook's School of Dental Medicine, Dr. Payne moved to Connecticut, where he attended the University of Connecticut School of Dental Medicine's postgraduate program in periodontology. His training there enabled him to hone his clinical skills and to pursue basic research training in immunology.

In 1989, Dr. Payne completed the periodontology certificate program and also received a Master of Dental Science degree. During the next two years he refined his research skills under the supervision of Dr. Frank Nichols, conducting a research grant funded by the National Institutes of Health on monocyte secretory function in periodontitis. During this time, Dr. Payne married Stony Brook alumna Jodie Stein, DDS ('87).

In 1991, Dr. Payne joined the UNMC College of Dentistry as Assistant Professor in the Department of Surgical Specialties and in 1996 was named Associate Professor in the department. From 1998 to 2000 he served as Assistant Dean for Research and Postgraduate and Graduate Dental Education. After coordinating the self-study (accreditation) process for the college's six postgraduate programs, Dr. Payne relinquished administrative duties in postgraduate and graduate dental education in November 2000, to focus on advancing the college's and his own research agendas. Currently, he serves as Associate Dean for Research.

While at the UNMC College of Dentistry, Dr. Payne conducted basic research on smokeless tobacco and the effects of nicotine on monocyte secretory function. He also conducted clinical research on the progression of alveolar bone loss in postmenopausal women with a history of periodontitis. Last year, Dr. Payne and Dr. Reinhardt received the prestigious Clinical Research Award from the American Academy of Periodontology for their research on oral bone loss in postmenopausal women. In similar research, Dr. Payne has collaborated with Stony Brook's Dr. Lorne Golub for several years on a project designed to decrease alveolar bone loss in postmenopausal women through the use of low doses of doxycycline.



Dr. Jeffrey B. Payne

Dr. Payne attributes his successful development as a research scientist to his early research on histidine-rich polypeptides with Dr. Vincent Iacono, Chair of the Department of Periodontics at Stony Brook, and to Stony Brook's curriculum in oral biology. Dr. Payne acknowledges the importance of Stony Brook's message that an understanding of the basic sciences is a critical component in the practice of dentistry and added that he hopes future Stony Brook graduates will be influenced as he has to become lifelong learners and to pursue academic careers. ■

Awards Ceremony 2001

The School of Dental Medicine held its annual Awards Ceremony on May 2, 2001, recognizing students for academic achievement and for service to the school and the alumni association. **Dean Barry Rifkin,** speaking to an assembly of students, faculty, parents, and friends, congratulated the students on their accomplishments, noting the difficult challenge posed by the dental curriculum. He also thanked the faculty for their patience, devotion, and expertise. **Dr. Steven Goldstein**, President of the Suffolk County Dental Society, presented the Suffolk County Dental Society Award to **Michelle M. Bailey.**

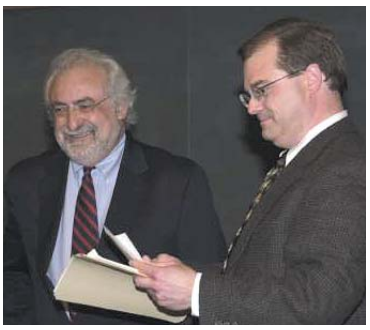
Dr. Richard Oringer, President of the local chapter of Omicron Kappa Upsilon (the national dental honor society) and Assistant Professor of Periodontics, introduced newly elected student members **Yanina Krayevsky, Kerry J. Sauer,** and **Ian Silversmith**. The William S. Kramer Award of Excellence, presented to the student who has achieved the highest academic average during the first two years of dental school, was awarded to **Michelle Bailey. Mouhab Z. Rizkallah** received the Alpha Omega Award for having achieved the highest scholastic average during the first three years of dental school and was also awarded the Quintessence Award for Research Achievement.

Dr. Jonathan Garlick, Associate Professor of Oral Biology and Pathology, presented awards honoring former members of the Stony Brook Dental Faculty. The **Dr. A. John Gwinnett** Dental Student Memorial Award, awarded in recognition of Dr. Gwinnett's contributions to the advancement of oral health and dental science, was presented to **Ying Gu**. The Leon Eisenbud Oral Pathology Award, given to the student who has demonstrated superior performance in Oral Pathology, was presented to **Kerry J. Sauer.**

Representatives from each department came forth in succession to present awards for clinical excellence. **Dr. Stanley Alexander,** Professor and Chair of the Department of Children's Dentistry, presented the American Association of Orthodontists Award to **Mouhab Z. Rizkallah** and **Ian Silversmith**, and the American Society of Dentistry for Children Award to **Kerry J. Sauer**. In General Dentistry, **Nancy Ciminera, James P. Geyda, Eric G. Hanson, Lon J. Lippman, Michael Noghrei, Wayne M. Tong,** and **Wai-Ming Young** won awards for outstanding achievements in various phases of restorative dentistry. **Dr. Mary Truhlar,** Associate Professor of General Dentistry and Director of the Geriatric Dentistry Program, presented **Anaheata Esmailzada** and **Wai-Ming Young** with the Crest Award for Excellence in Geriatric Dentistry.

Michelle M. Bailey *(left)* and Dr. Stephen M. Goldstein

Dr. Mary Truhlar *(left)* and Wai-Ming Young



Dean Barry Rifkin *(left)* and Dr. Allan Kucine welcome students and parents to the ceremony.

Jennifer Sabol accepting commission in the U.S. Army Dental Corps.

Dr. Allan Kucine, Associate Dean for Academic Affairs and Vice Chair of the Department of Oral and Maxillofacial Surgery, recognized **Yanina Krayevsky** and **Wayne M. Tong** for their outstanding ability in the field of oral surgery. **Jennifer V. Sabol** and **Kerry J. Sauer** won awards for their achievements in dental anesthesiology and pain control. **Dr. Vincent Iacono,** Professor and Chair of the Department of Periodontics, recognized **Janette A. Kalba** as the winner of the Quintessence Award for Clinical Achievement in Periodontics. He also presented the International Congress of Oral Implantologists Award to **Wayne M. Tong.**

The Dental Student Organization recognized **Daniel P. Duggan** for his excellent leadership and service to the school. **Dr. Kucine** was presented with the American Student Dental Association Outstanding Advocate Award. The American Student Dental Association Faculty Award, presented for guidance of student leaders and for overall support of the student body, was awarded to **Dr. Eugene L. Antenucci,** Clinical Assistant Professor of General Dentistry.

The graduating class chose **Dr. Oringer** to serve as the 2001 Commencement Grand Marshall, and **Drs. Fred S. Ferguson, Seymour Friedman, Garlick**, and **Mark S. Wolff** to serve as Marshalls.

Appointments

Dr. Soosan Ghazizadeh was appointed Research Assistant Professor in the Department of Oral Biology following several years as a Postdoctoral Research Associate. Prior to coming to the School of Dental Medicine, Dr. Ghazizadeh obtained a BS in Biology from the University of North Texas and an MS degree from the University of Texas at Arlington. She earned a PhD degree in Cellular and Developmental Biology from Stony Brook in 1994. Her thesis research was on the mechanism of signaling from the FcgRII immunoglobulin receptor. At the School of Dental Medicine, Dr. Ghazizadeh is conducting research on gene therapy and skin development in collaboration with **Dr. Lorne Taichman**. Her research is supported by a KO1 grant from the National Institutes of Health.


Soosan Ghazizadeh


Mary R. Truhlar

Dr. Mary R. Truhlar was recently promoted to Clinical Associate Professor in the Department of General Dentistry and is now teaching full-time. She will devote her time as Director of the Geriatric Dentistry Program and as Director of the Advanced Education in General Dentistry Program. Dr. Truhlar is a graduate of the School of Dental Medicine ('84). Following graduation, she completed a general practice residency at Long Island Jewish Medical Center and a two-year residency in Geriatric Dentistry at the Veterans Administration Medical Center in Milwaukee. She also earned an MS degree in Dental Science from Marquette University in 1988.

Dr. Stephen G. Walker, PhD, is the newest member recruited to the Department of Oral Biology and Pathology. Dr. Walker


Steven Walker

came to Stony Brook from the Southern Crop Protection and Food Research Center of Ontario, Canada, where he was employed as a research scientist. He received a BSc degree from the University of Western Ontario and a MSc degree from the University of Guelph. His PhD degree was earned at the University of British Columbia. Dr. Walker's connection to Oral Biology stems from a three-year postdoctoral stint at the University of Texas Health Science Center at San Antonio under the supervision of **Drs. Stanley Holt** and **Jeffrey Ebersole**, both experts in the biology of oral pathogenic bacteria.

Dr. Walker's areas of expertise are in the physical, biochemical, and genetic analysis of bacterial cell surface proteins and carbohydrates. His most recent publications describe his collaborative studies with Drs. Ebersole and Holt and others on the isolation and chemical analysis of a lipopolysaccharide from the outer membrane of the oral anaerobic spirochete *Treponema pectinovorum*. He has also published research on the virulence characteristics of oral Treponemes and the isolation and structural characterization of extracellular polysaccharides from *Caulobacter crescentus*. He has published numerous papers, abstracts, and book chapters related to oral microbiology.

Dr. Mark Wolff has been appointed to the full-time faculty as Professor in the Department of General Dentistry. He will hold a joint professorial appointment in the Department of Oral Biology and Pathology. Dr. Wolff obtained a BS in Biology from Stony Brook in 1977. He earned his DDS degree from the School of Dental Medicine in 1981. Following the completion of a general practice residency in the Department of Dentistry at University Hospital, Dr. Wolff practiced general dentistry locally for several years and served as a part-time member of the Stony Brook faculty. Since 1990, he has served as the Director of Operative Dentistry. From 1994 to 1997, he served as Chair of the Department of General Dentistry. In 1997, Dr. Wolff earned a PhD degree in Oral Biology and Pathology from Stony Brook. His thesis research centered on the dynamics of the flow of saliva and gingival fluid. He has held grants for clinical research from numerous industries, including CollaGenex, Johnson & Johnson, Noven Pharmaceuticals, and Ortek Therapeutics.


Mark Wolff

Dr. Kathryn Yunger comes to the School of Dental Medicine as Assistant Dean for Institutional Advancement after serving as the Director of Community Relations at Stony Brook University. She arrived on campus 25 years ago to pursue her undergraduate degree and has been at Stony Brook ever since. She completed her doctoral work in anthropology in 1985 and served as adjunct teaching professor at Stony Brook and Dowling College until 1992.


Kathryn Yunger

Dr. Yunger joined the Stony Brook University administration in 1988 as Assistant Director of Auxiliary Services, assuming responsibility for travel management, bookstore relations, and fleet services. Moving into Purchasing, she decentralized the computerized state procurement system and successfully automated the purchase requisition process on campus. In 1997, Dr. Yunger joined the Vice President of University Affairs' staff to assist in implementing President Kenny's first five-year plan. In 1998, she joined the President's Office as Director of Community Relations, where she enjoyed the challenges of working with student, campus, community, and business leaders and elected officials in

creating collaborative projects with the community.

Over the past 15 years, Dr. Yunger has had increasing responsibilities in University programs, corporate and community relations, management, and volunteer programs. Her experience in alumni relations, public relations, event planning, and government relations translates easily into meeting the needs of the School of Dental Medicine as Assistant Dean for Institutional Advancement. Among other projects, she expects to invigorate the Stony Brook Dental Alumni Association by creating meaningful programs and lasting relationships. If you would like to share ideas and suggestions with Dr. Yunger, e-mail her at *kyunger@epo.hsc.sunysb.edu* or call her at (631) 632-8807.

Robert DuBois, DDS; **Richard Imparato,** DMD; **Steven Kruger**, DDS; **John Lagner,** DMD; and **Debra Oreste,** DDS, have been appointed as Clinical Assistant Professors in the Department of General Dentistry.

New Department

Dean Barry Rifkin announced the formation of the Department of Hospital Dentistry and Dental Anesthesiology, naming **Robert Reiner,** DDS, Acting Chair of the new department and Acting Chief of the Department of Dentistry at University Hospital.

Continuing Dental Education

Dr. Edward Schlissel has been appointed Director of Continuing Education. **Marguerite Baldwin** will serve as coordinator of the Continuing Education Program.

Faculty News

Dr. Jonathan Garlick was appointed to serve on the editorial boards of Oral Oncology and the International Journal of Oral Biology. He was also elected President of the American Association of Oral Biologists (AAOB), assuming his duties at the annual meeting held in Chicago last March. Through participation in the AAOB, Dr. Garlick hopes to link all Oral Biology Departments into one educational community.

Dr. Vincent Iacono was elected to the Board of Directors of the Academy of Osseointegration, Vice President of the International Academy of Periodontology, and has been nominated for the position of Secretary-Treasurer of the American Academy of Periodontology.
Dr. Allan Kucine was appointed to the American Dental Association Council on Accreditation.

Dr. Richard Oringer has been appointed to the editorial board of the *Journal of Evidenced-Based Dental Practice*, a newly created Mosby Inc. publication that prints evidenced-based reviews of clinical procedures as well as new technology updates, alerts, and evaluations. Dr. Oringer has also been selected by the American Academy of Periodontology to write a position paper on host modulation.

Dr. Burton Pollock has been appointed as a consultant on law and ethics to the Northeast Regional Board of Dental Examiners.

Dr. H. Barry Waldman is serving as a consultant to the Special Olympics Committee for the Special Smiles Program. In 2001, while on sabbatical, he will serve as a visiting scientist with the National Office of the Special Olympics in Washington, D.C.

Honors

Dr. Mary R. Truhlar was awarded the Long Island Alzheimer's Foundation Outstanding Service Award for 2000 at the Garden City Hotel.

Dr. H. Barry Waldman was the recipient of a President's Award for Excellence in Teaching.

New Grants and Contracts

Dr. Lorne Golub has been awarded $2,092,894 for a new five-year grant titled, "Low-Dose Deoxycycline Effects on Osteopenic Bone Loss," from the National Institutes of Craniofacial and Dental Research.

Dr. Christopher Cutler is the principal investigator on the following new grants from the National Institutes of Health: "Oral Pathogens and Dendritic Cells," funded from 2000-2005, at a total cost of $1,429,750, and "Dendritic Cells, LPS, and Oral Mucosa," funded from 2000-2002, at a total cost of $352,487. The Stony Brook Foundation recently awarded $40,000 to Dr. Cutler for a project titled, "Periodontal Molecular Medicine Research."

Dr. Lorne Taichman is the principal investigator on a new grant from the National Institutes of Craniofacial and Dental Research titled, "Cutaneous Gene Transfer for Systemic Therapy," funded 2000 to 2005, at a total cost of $1,360,322. He has also been awarded a grant of $120,000 from Johnson & Johnson, funded from 2000 to 2002, to explore gene transfer to skin as a means for inducing systemic delivery of a missing or needed protein.

Dr. Jonathan Garlick is the principal investigator on a new grant from the National Institutes of Craniofacial and Dental Research titled, "Pathways and Mechanisms Controlling Early Oral Neoplasia," funded from 2001 to 2006, at a total cost of $1,050,000. **Dr. Richard Oringer** has received multiyear industrial funding for research on new local and systemic drug delivery systems and the potential use of growth factors for implant site development from CollaGenex, The Genetics Institute, and OraPharma.

Dr. Mark Wolff is the principal investigator of two new research grants from Frontier Pharmaceuticals. The grants are titled "Efficacy Evaluation of a Chlorine Dioxide Toothpaste (DioxiBrite) on Plaque and Gingivitis," and from Church and Dwight, "The Determination of the Minimal Efficacious Dose of the Anti-Sialogoque, Glycopyrrolate (Robinul), on Salivary Flow and Mucosal Wetness to Stimulate the Nocturnal Decrease in Normal Salivary Flow Rates." The grants are funded at $54,000 and $25,000 respectively. Dr. Wolff is also co-principal investigator with Dr. Israel Kleinberg to conduct a "Clinical Evaluation of the Effects of Fluoride- and Arginine-Bicarbonate-Containing Dentrifices on Dentinal Sensitivity," funded at $165,000 by Ortek Therapeutics.

The American Academy of Periodontology Foundation has announced that the Department of Periodontics at Stony Brook will receive the Charles W. Finley Visiting Scholar Education Grant for 2001. The department has selected **Dr. William V. Giannobile** as the Charles W. Finley Visiting Scholar. Dr. Giannobile is a recognized leader in the field of translational research involving gene transfer, biomimetics, and tissue engineering. He is collaborating with the Department of Periodontics at Stony Brook in investigating the effects of both locally delivered chemotherapeutics and systemically delivered anti-inflammatory agents in patients with periodontitis; the use of gene therapy to deliver growth factors directly to the periodontal ligament; and the development of a predictive chairside diagnostic test to measure bone resorption in patients with periodontitis and osteoporosis. During his stay at Stony Brook, Dr. Giannobile will lecture students, faculty, and practicing periodontists.

National and International Meetings

Dr. Jonathan Garlick served as the chairman of a symposium on "The Role of Cell-Cell Interaction in Skin Substitutes" held at the World Congress on In Vitro Biology in San Diego, California last year. At that meeting, he presented a paper titled "Epithelial-Mesenchymal Interactions in Normal Tissue Homeostasis and Early Neoplastic Progression of Skin Equivalents." Dr. Garlick also chaired a session titled, "How to Build Tissues from Cells—Tissue Engineering of Bone, Cartilage, and Stratified Epithelium," at the annual meeting of the International Association of Dental Research held in Washington, D.C., in April 2000. At that meeting, Dr. Garlick spoke about "The Models of Intraepithelial Neoplasia."

Dr. Ling Xu presented a paper on "Anti-Candidal Activity of Human Parotid Saliva Histidine-Rich Polypeptides between Normal and HIV-positive Clinical Subjects" at a meeting held in Beijing, China. ■

Students and Faculty Make a Case For Annual Postdoctoral Presentations

Stony Brook faculty and third- and fourth-year predoctoral dental students convened on May 3, 2001, to hear case presentations by postdoctoral students from the Advanced Education in Dentistry Programs. The presentations were coordinated by Dr. Seymour Friedman, Director of the Advanced Education in Endodontics Program at Stony Brook.

Individual students or teams of students made eight clinical case presentations on topics ranging from restorative dentistry to periodontal surgical techniques. For the presenters, the day provided an opportunity to discuss how they successfully managed difficult cases or implemented new clinical techniques. It also gave them a chance to gain experience in making formal presentations.

The early-morning presentations included "Overdenture Attachments" by Drs. Kevin Huynh, Raquel Lopez, and Shawn Pobiner; "Techniques in Implant-Supported Fixed Restorations" by Drs. Scarlet Arakelian and Susan Shukri; "Restoring the Edentulous Patient" by Drs. Kyle Chin, Cecilia Diggin, John Foti, Jr., Barbara Friedman, and Vera Leshi; "Challenging Removable Partial Denture Scenarios" by Drs. Foti, Robin Kozlowski, and Michael Leyferman; and "Use of the Operating Microscope in Surgical and Non-surgical Endodontics" by Drs. Harry Einbender and Noboru Yamaki.

The late-morning presentations were "Lesion of the Buccal Mucosa" by Dr. Jeffrey Coy, Jr.; "Lesion of the Mandible" by Dr. Marisol Cordero; and "Sinus Grafting Techniques" by Dr. Oleg Zusin.

For faculty, case presentation day enabled them to assess the level of expertise achieved by postdoctoral students. A question-and-answer session from faculty and students followed each postdoctoral student's presentation. The formal session was followed by a barbecue lunch prepared by postdoctoral students of the Endodontics Program. ■

(From left): Drs. Philip Mascia, Harry Einbender, Michael Newman, and Noboru Yamaki

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HEALTH SCIENCES CENTER

SCHOOL OF DENTAL MEDICINE
160 ROCKLAND HALL
STONY BROOK, NY 11794-8700