UCONN health center

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Winter 2007

Learning Through Service

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UConn health center

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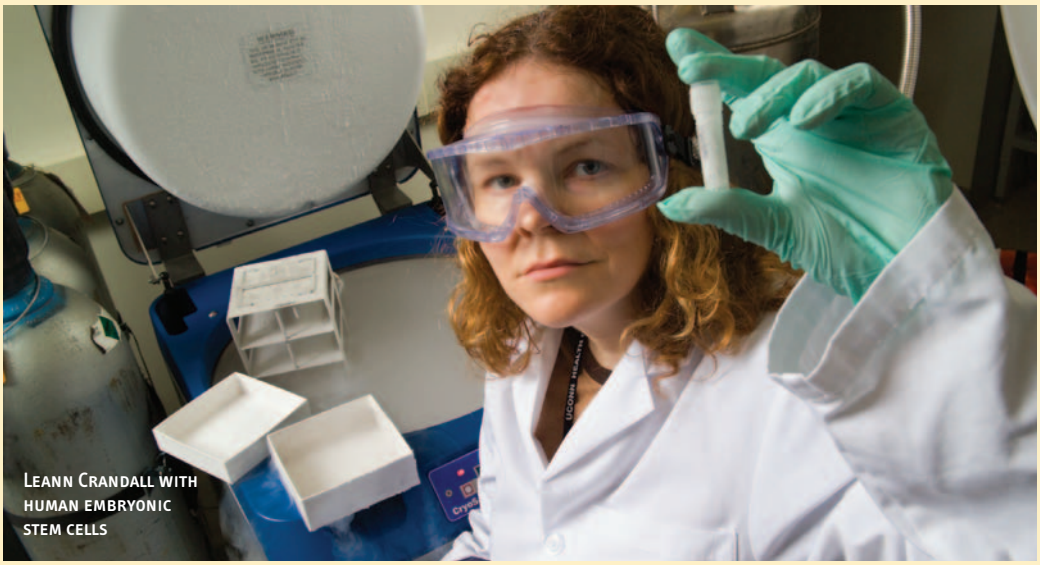


LEANN CRANDALL WITH HUMAN EMBRYONIC STEM CELLS

Stem Cell Institute Bolstered by State Grants

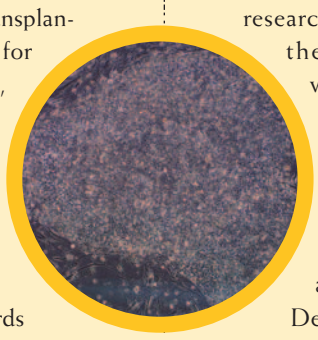
UConn has received 15 grants totaling more than $12 million from the Connecticut Stem Cell Research Advisory Committee for embryonic and human adult stem cell research.

The awards were the first under a 2005 state law establishing a 10-year, $100 million commitment to fund stem cell research, in the face of a ban on the use of federal funds for the work.

California, Maryland, New Jersey and Illinois have passed stem cell research legislation; but Connecticut is the first to implement an ongoing, structured grant program for it.

The state-funded grants will expand the university's cross-campus Stem Cell Institute, supporting some 23 investigators at both the Storrs campus and the Health Center who are already engaged in significant stem cell and regenerative biology research.

Stem cells are the "building blocks" for every type of cell in the body, capable of maturing into any tissue type. The research promises to advance human health care by developing innovative cell transplantation therapies for diabetes, cancers, heart and blood disorders, multiple sclerosis, Parkinson's, and Alzheimer's disease.



A MICROSCOPIC VIEW OF A HUMAN EMBRYONIC STEM CELL COLONY GROWN AT THE HEALTH CENTER

"These awards recognize the expertise of our faculty in a field of great promise to medical research and great potential to the state's economic growth," says President Philip E. Austin.

Eight Connecticut-based universities and nonprofit institutes submitted 70 research proposals totaling $65 million to the state stem cell panel. Each proposal was evaluated and ranked by a separate group of scientists.

"The committee was impressed by the quality of our research proposals and their integration with the human embryonic stem cell core facility at UConn," says Marc Lalande, Ph.D., professor and chair of the Department of Genetics and Developmental Biology, and associate dean for research planning and coordination at the Health Center.

"The state funding will greatly help us to achieve our goals in understanding the biological basis of cell-based regenerative medicine."

New Endowed Chairs Named

Andrew Winokur, M.D., Ph.D., and Daniel Connor, M.D., in the Department of Psychiatry; and Audrey Chapman, Ph.D., in the Department of Community Medicine and Health Care have been appointed to new endowed chairs at the Health Center.

Winokur is the first holder of the Dr. Manfred J. Sakel Distinguished Chair in Psychiatry established last year with a gift from the late Marianne Hartly. Besides teaching psychopharmacology in the psychiatry residency program, Winokur does research on established and investigational drugs for the treatment of mood and anxiety disorders.

Connor is the first holder of the Lockean Distinguished Chair in Mental Health Education, Research and Clinical Improvement, established earlier this year with an anonymous gift of $2 million. His research focuses on the effectiveness and tolerability of existing and new pharmacological treatments for mental illnesses in children and adults.

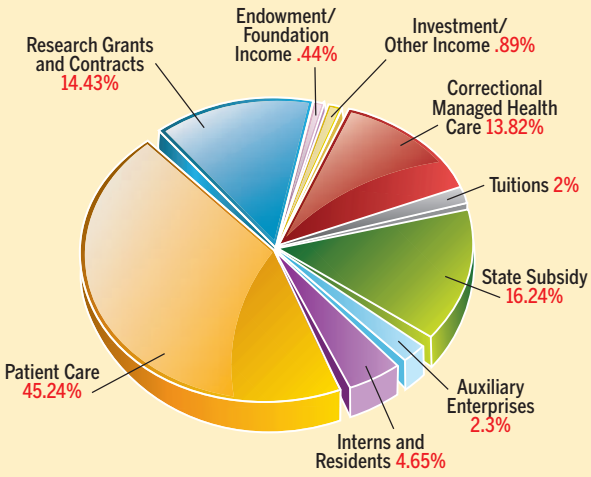
Chapman is the first holder of the UConn Health Center Auxiliary's Joseph M. Healey, Jr. Chair in Medical Humanities and Bioethics. The chair was established last year with a gift of more than $1 million from the UConn Health Center Auxiliary, which raised the money through gifts from medical school alumni and faculty, and a wide variety of fund-raising activities.

Her areas of research are ethical issues related to genetics and stem cells, improving access and availability of health services, and intellectual property regimes affecting health and genetics research.

ANDREW WINOKUR, DANIEL CONNOR AND AUDREY CHAPMAN

CHARTING OUR COURSE

Sources of Health Center Revenue (Fiscal Year 2006)



- Patient Care $283,908,465
- State Subsidy $101,892,108
- Research Grants and Contracts $90,552,562
- Correctional Managed Health Care $86,721,312
- Interns and Residents $29,174,479
- Auxiliary Enterprises $14,416,164
- Tuitions $12,537,530
- Investment/Other Income $5,569,828
- Endowment/Foundation Income $2,765,490

CHADD CEO CLARK ROSS AND LEIGHTON HUEY

Huey Receives Public Policy Award

Leighton Huey, M.D., chairman of the Department of Psychiatry, received the 2006 Public Policy Award from CHADD, the nation's leading advocacy organization serving individuals affected by attention-deficit/hyperactivity disorder (ADHD).

The award was given to Huey for his national leadership in two areas: 1) making sure all psychiatry residents have an opportunity to learn directly from consumers of mental health services so they can understand what it's like to live with psychiatric illnesses, the "lived experience"; and 2) dealing with the behavioral health force crisis (training, recruitment and retention) as a member of the Annapolis Coalition on the Behavioral Health Work Force, which is dealing with the issues at both the preprofessional and established work force levels in all disciplines related to behavioral health.

The award was presented to Huey at the organization's 18th annual international meeting in Chicago in October.

research

Gambling and Health

Gamblers, even those who gamble five times a year, have more health problems than people who gamble less frequently, according to new research by Nancy Petry, Ph.D., professor of psychiatry at the Health Center

In a study using data from the National Epidemiologic Survey on Alcohol and Related Conditions, Petry and colleagues found gamblers had increased rates of high blood pressure and obesity, and were more likely to have received treatment in an emergency room or reported a severe injury in the past year.

"The study was designed to ask whether gambling is associated with health risks," says Petry. "It showed that gamblers, especially pathological ones, get sick more often and use more health services; so gambling has a greater societal cost than is often acknowledged."

The study appears in the November issue of *Psychosomatic Medicine*.

MICHAEL AZRIN PREPARES TO PERFORM AN ANGIOPLASTY.

Superior Heart Attack Care

John Dempsey Hospital at UConn Health Center has been recognized for superior outcomes in the use of angioplasty and stents to unblock narrowed coronary arteries in patients with myocardial infarction by CareScience, a company that provides care management services for hospitals.

"Our constant focus on improving care to patients is reflected in this recognition," says Bruce Liang, M.D., director of the Calhoun Cardiology Center. "Acutely ill patients with myocardial infarction require a dedicated, high-quality and experienced team of health care providers. Our quality improvement efforts help ensure we have just such a team," says Michael Azrin, M.D., director of the catheterization lab in the Calhoun Cardiology Center.

John Dempsey Hospital is one of 37 hospitals nationwide named a 2006 National Quality Leader in the treatment of myocardial infarction with percutaneous coronary intervention (PCI), or the use of angioplasty and stents. During angioplasty tiny balloons are threaded through a blood vessel and into a coronary artery to widen the blocked area. A stent is a mesh tube that is often placed inside the artery during angioplasty to hold it open and prevent narrowing again in the future.

CareScience identified JDH as a 2006 National Quality Leader through its Select Practice Methodology, which uses both quality and efficiency measures to rank hospital performance. The CareScience model for quality of care is measured by the incidence of three outcomes: mortality, morbidity and complications, which are combined into a single quality measure to rank a hospital's quality of care for patient populations with various health conditions.

Last year, the Health Center received high marks for its treatment of patients admitted for heart attack or heart failure on hospital performance data collected by the federal Department of Health and Human Services under a program called Hospital Compare, which is designed to improve hospital performance over time and give consumers a way to compare hospital quality.

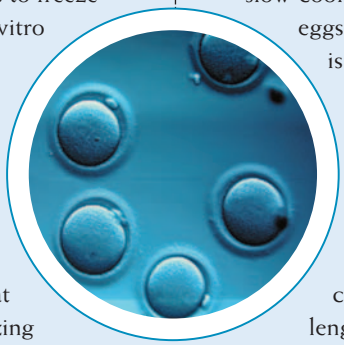
"Acutely ill patients with myocardial infarction require a dedicated, high-quality and experienced team of health care providers. Our quality improvement efforts help ensure we have just such a team."

—MICHAEL AZRIN

Freezing Eggs Studied

Experts at the Center for Advanced Reproductive Services at the Health Center are studying two methods to freeze eggs produced during the in vitro fertilization process.

"Egg freezing is an exciting new technology that will allow infertility patients the option of storing excess eggs instead of embryos, eliminating some of the ethical and religious concerns that accompany embryo freezing and storage," says Claudio Benediva, M.D., director of the center's IVF lab.



HUMAN EGGS BEFORE VITRIFICATION

The research will look at two methods of egg freezing – the conventional technique of slow cooling versus a rapid freezing of eggs called vitrification. The study is open to patients undergoing IVF treatments at the center if they meet the study criteria.

Although specialists for many years have had the ability to freeze embryos created through the IVF process, eggs have posed a challenge because they are extremely delicate and prone to damage in the freezing process.

New Residency Program To Improve Access to Psychiatric Care

UConn is offering a new residency program in child and adolescent psychiatry, and has begun accepting applicants for the first class starting in July.

"The program will help address the chronic shortage of adolescent and child psychiatrists," says Daniel Connor, M.D., chief of the division of child and adolescent psychiatry; and holder of the Lockean Distinguished Chair in Mental Health Education, Research and Clinical Improvement.

Currently, there are about 6,300 child and adolescent psychiatrists practicing in the United States, a number considered insufficient by organizations such as the National Institute of Mental Health, the Surgeon General and the Council on Graduate Medical Education. The number of child and adolescent psychiatry residency programs decreased from 130 in 1980 to 114 in 2002, according to the American Medical Association.

"I think it's important that we send the message that we value child psychiatry research and clinical care here," says Connor. The program received three-year accreditation from the Accreditation Council for Graduate Medical Education.

New Affiliation

Medical students may choose the primary care clinic at St. Vincent's Medical Center in Bridgeport for their student continuity practice, thanks to a new affiliation between St. Vincent's and the UConn School of Medicine.

The 397-bed, acute care hospital will be a site for fourth-year rotations taught by St. Vincent's physician faculty; and St. Vincent's residents can pursue elective rotations at the Health Center. Both faculties will be involved in continuing medical education, and UConn faculty will support new postgraduate programs at St. Vincent's.

ST. VINCENT'S MEDICAL CENTER

"The affiliation agreement makes a high-quality teaching venue in Fairfield County available to our students," says Bruce Koeppen, M.D., Ph.D., dean for academic affairs.

UConn was selected for the affiliation after a lengthy search by St. Vincent's. "A hospital with an academic affiliation provides the highest quality care," says Jose Missri, M.D., chief medical officer of St. Vincent's Medical Center.

Low Health Literacy in State

Fifteen percent of the state's residents have low health literacy, and it costs Connecticut more than $6 billion a year in additional health care expenses, according to a new report by students in the Health Center's graduate program in public health.

Health literacy refers to a person's ability to acquire, understand, and use health information and services.

Low health literacy can cause people to make errors using medication or following self-care instructions.

"One in five people reads at or below a fifth-grade level," says graduate student Kimberly Lewendon. "Most health care materials are written for someone who reads at a tenth-grade level, suggesting that much of the health care material given to patients is written at a level too advanced for them to fully understand."

achievements

MacNeil Named Dental Dean

Monty MacNeil, D.D.S., M. Dent. Sc., has been named the new dean of the dental school, replacing Peter Robinson, D.D.S., Ph.D., who stepped down Dec. 31.

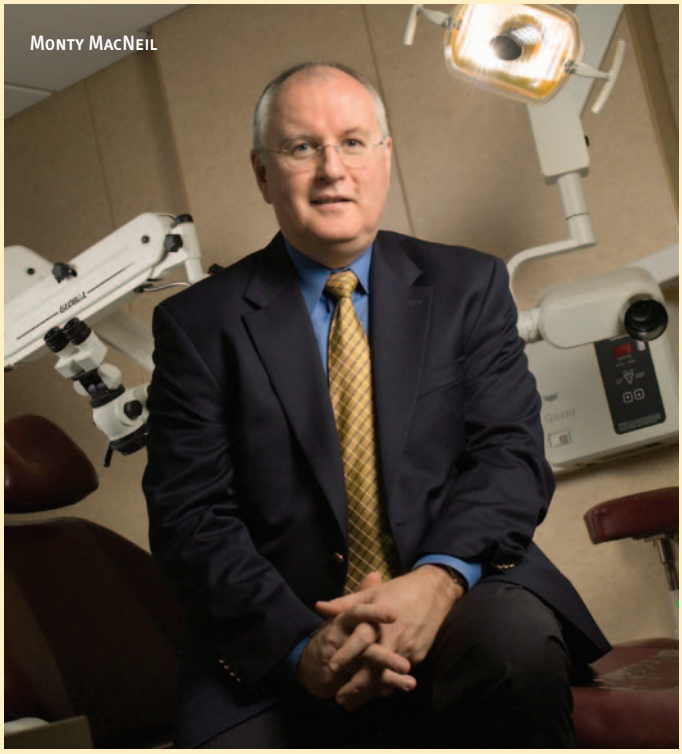
MacNeil, a professor in the Department of Periodontology, became the sixth dean and the first chosen from within the ranks of the dental school.

"It speaks to the quality and stature of the school when an extensive national search concludes with the selection of someone within our own organization," says Peter Deckers, M.D., executive director of health affairs and dean of the School of Medicine.

"MacNeil possesses all the critical skills, experience and talent necessary to lead this school to new heights," says Robinson, who served as dental dean for 10 years, during which time the school enhanced its strong national reputation for academic performance, research and service to underserved populations. After taking a sabbatical leave, Robinson will return to the school to continue his work in the area of outreach and other programs.

"Over a brief 30 years or so, this school has established itself as one of the finest in the country," says MacNeil, adding that he is honored by his selection.

"The school has many strengths, and I believe it is poised for even greater things in the future. We are blessed with great faculty, students and staff, and are part of a young, growing and inclusive academic health center. I know that together we can continue to be a leader and innovator in dental education. This is a special place."



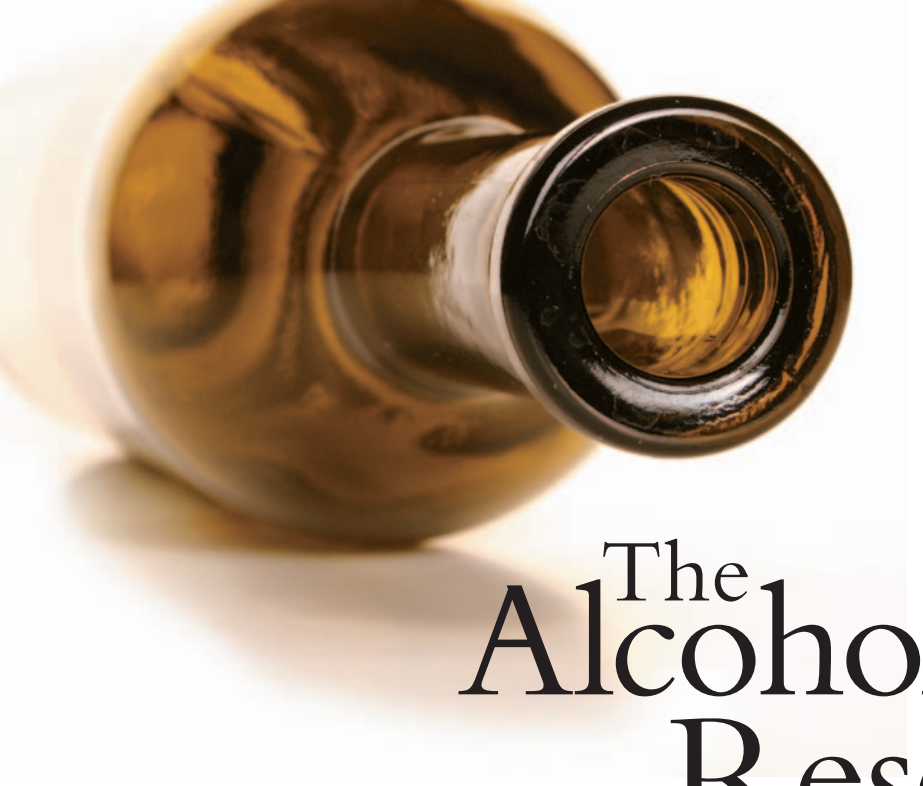
Monty MacNeil

MacNeil received a dental degree from Dalhousie University in Halifax, Nova Scotia, a certificate of advanced training in periodontics from UConn's School of Dental Medicine, and a Master of Dental Science degree from the UConn Graduate School.

He has held academic positions at four dental schools: Dalhousie, Indiana University, the University of Michigan and UConn. He joined the dental school in 1998 as an associate professor in the Department of Periodontology, attained the rank of professor in 2002 and was named vice dean in 2005.

MacNeil's research has led to more than 25 publications, primarily focused on cellular and molecular mechanisms regulating tooth development, periodontal wound healing and tissue regeneration.

MacNeil is a consultant on curriculum for the Commission on Dental Accreditation, and was a member of the Joint Commission on National Dental Examinations from 2001 to 2005, serving as chair of the commission in 2004-05. He is president-elect of the American Dental Education Association's Section on Academic Affairs.



The Alcohol Research Center

If there is a common theme among researchers investigating alcohol dependence, it is that the disorder is a complex one for which there may never be a single, simple cure. So scientists, such as those in the Health Center's Alcohol Research Center, are tackling the destructive burden of alcohol on many fronts.

They're looking at certain genes, studying medications, developing behavioral therapies and designing strategies for identifying those at risk.

By Kristina Goodnough

With the accumulation of research, the understanding of alcohol dependence from basic causes to treatment has surged.

"We're now in a much better position to apply scientific knowledge about alcohol dependence on two levels: clinical services to individuals and public policy affecting large populations," says Victor Hesselbrock, Ph.D., scientific director of the center, which was established more than 28 years ago, and is one of only four in the nation to receive continuous funding from the National Institutes of Health/National Institute on Alcohol Abuse and Alcoholism since the centers program began in 1977.

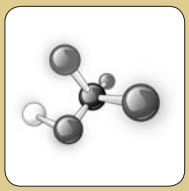
Scientists in the Alcohol Research Center, left to right: Lance Bauer, Ronald Kadden, Nancy Petry, Victor Hesselbrock, Henry Kranzler and Howard Tennen.

Pinpointing Genetic Factors

"For years, we believed there were biological and genetic components to alcohol dependence," says Hesselbrock, who is professor and vice chairman of the Department of Psychiatry. To pinpoint them, Hesselbrock joined researchers with eight other academic institutions in the Collaborative Study on the Genetics of Alcoholism. Since 1989, they have interviewed more than 15,000 individuals from more than 2,400 families; collecting clinical, neurocognitive, biochemical and genetic data. By systematically screening the human genome, they have learned that certain regions on specific chromosomes appear to be identified with an increased risk of alcoholism.

Genes related to ethanol metabolism, taste sensitivity and neurophysiological functioning have been linked to alcohol dependence. Studies of the genes are beginning to provide clues to the biological processes involved.

"If we can find a compound that reduces a person's craving for alcohol, for example, we could develop a medication that might reduce a person's drinking. It wouldn't be a cure, but it would help reduce the burden of alcohol," says Hesselbrock. "Scientists are extremely excited about this progress, but it's not a magic bullet, which is what the public wants."



Specific genes affect a person's susceptibility for developing dependence on alcohol, according to Victor Hesselbrock, who has identified some of them.

Treatment Works

As research outlines the complex nature of alcoholism, scientists are moving away from the concept of a cure.

"Treatment works," says Henry Kranzler, M.D., whose research helped demonstrate the efficacy of monthly injections of naltrexone, which in its oral form was the first drug approved for the treatment of alcohol dependence since disulfiram, or Antabuse, was approved more than 50 years ago.

Unfortunately, only about 25 percent of alcoholics in this country ever get any treatment, says Kranzler, who is a physician and a professor in the psychiatry department. Annual prescriptions for naltrexone, disulfiram and acamprosate to treat alcohol dependence each exceed about 200,000 annually. "In an adult population that exceeds 200 million, with a 12-month prevalence of alcohol dependence estimated to be as high as 3.8 percent, this number of prescriptions demonstrates very limited interest by practitioners in the use of medication to treat alcohol dependence," Kranzler wrote in an editorial in the journal *Addiction* last February.

"Many physicians don't want to treat alcoholics because they don't feel confident about their ability to do so effectively and because they're influenced by the same cultural perceptions held by a lot of people – that alcoholism is a moral weakness," says Kranzler. "And alcoholics, who may be embarrassed to talk about their problem, often don't want treatment."

A monthly shot of naltrexone can help alcoholics refrain from drinking, according to clinical trials conducted by Henry Kranzler.

For one study of naltrexone, conducted by Kranzler at the Health Center and by other researchers at 28 sites around the country, participants received either naltrexone injections or placebo injections monthly, along with psychotherapy. They were encouraged to attend Alcoholics Anonymous or another self-help recovery program.

During the 12-week study, 23 percent of the naltrexone group reported no heavy drinking, compared with 16 percent of the placebo subjects; and 18 percent of the naltrexone group achieved total abstinence, compared with 10 percent of the placebo group. Participants' own reports of alcohol use were corroborated by blood tests to measure a liver enzyme that increases in response to heavy alcohol consumption.

A study of a different long-acting naltrexone formulation showed that overall the medication reduced the rate of heavy drinking by 25 percent, compared with the placebo. This study was the basis for approval of the formulation for clinical use.

"The results provide clear evidence for the effectiveness of the injectable form of naltrexone for treatment of alcohol dependence," says Kranzler.

Prizes Work, Too

Treatment doesn't have to include medication to be effective, says Nancy Petry, Ph.D., who has shown in study after study that the chance to win prizes can help addicts stay in treatment and stay abstinent.

In her studies, patients who can demonstrate by a urine test or breath test that they haven't used drugs or alcohol earn the opportunity to draw a token from

a bowl. Each token is associated with a chance of winning a prize, ranging in value from a gift certificate to a fast-food restaurant, or a pair of socks to a radio or handheld television.

In one study, 42 alcohol-dependent veterans were randomly assigned to standard treatment or standard treatment plus contingency management (CM), the chance of winning prizes. Eighty-four percent of those in the CM program stayed in treatment for an eight-week period, compared with 22 percent of those receiving standard treatment. By the end of treatment, 69 percent of those in the CM program were abstinent, while 61 percent of those receiving standard treatment had used alcohol. Participants in the CM program had earned an average of $200 in prizes.

The technique works, whether to keep people abstinent from drugs or alcohol or to keep them in a treatment program, according to Petry, a professor in the psychiatry department.

Initial response to publication of her studies was highly critical. "People were horrified at the notion of rewarding or bribing addicts to abstain," says Petry, who sets aside the notion of bribery. "It's the same technique that parents use with children. It's behavior modification and behavior shaping. And it works."

During the past several years, Petry has trained dozens of counselors in the technique, which has been implemented in drug treatment centers around the country. "Opinion in the treatment community has shifted toward positive, as more clinicians have seen the technique work in practice," says Petry.

Building Policies on Science

The shift in orientation of the treatment system also comes from research about the nature of alcohol use and dependence, says Thomas Babor, Ph.D., a professor in the Department of Community Medicine. "Data show the destructive consequences of alcohol aren't just the result of the small percentage of the population that is alcoholic. At-risk drinkers, or those whose alcohol use gets them into trouble medically, socially and legally, are a huge part of the problem. For every one alcoholic, there are five nonalcoholics whose drinking occasionally causes them health or social problems, such as accidents or domestic disputes."

"Our research also shows that at-risk drinkers are more amenable to change than alcoholics," says Babor. "To reach them, we are moving identification and treatment away from specialized facilities and into outpatient arenas, emergency departments, and ultimately into doctors' offices and community clinics."

A couple of brief questions and a little advice from a physician during a routine medical appointment can uncover problems with alcohol and help the person cut back, according to research by Thomas Babor.

The chance to win prizes can help alcoholics remain in treatment and refrain from drinking, according to studies by Nancy Petry.

Working with the World Health Organization, Babor and a group of international researchers created a screening test to identify at-risk drinkers. The test, called the Alcohol Use Disorder Identification Test (AUDIT), is a brief questionnaire that can be used in primary care settings in many countries and can identify problems with alcohol use, regardless of cultural contexts. It has been translated into many languages and is now the most widely used alcohol-screening test in the world.

The screening combined with a brief intervention that provides information on the risks of drinking and possible solutions can help this population cut back on drinking, and significantly reduce the destructive consequences of alcohol use.

Towards a Public Health Approach

Alcohol problems in this country and around the world have waxed and waned, often with the rise and fall of social movements such as temperance societies and religious groups.

"Looking at the long waves of alcohol use from an historical perspective, we are unlikely to have significant impact unless we apply a public health approach that includes broad-based measures aimed at awareness, treatment and prevention among the entire population," says Babor.

To that end, Babor and 14 experts from around the world reviewed the scientific literature on alcohol, its effect on human populations, and the strategies and interventions used around the world to prevent alcohol problems. They published their findings in a book titled, *Alcohol: No Ordinary Commodity*.

"After reviewing more than 450 studies conducted throughout the world, we found that alcohol taxes and restrictions on hours and days of sales were among the most effective of the 31 strategies and interventions used by local and national governments as part of their alcohol policies. Measures such as alcohol education in the schools were relatively ineffective," says Babor. "When alcohol taxes go up, drinking problems go down. When restrictions on alcohol availability are removed, drinking problems go up.

"Sensible controls on alcohol consumption go back to the Code of Hammurabi more than 4,000 years ago. If we combine them with evidence-based knowledge of effective treatments, we can begin to ease the consequences of 'demon rum.'"

grants at a glance

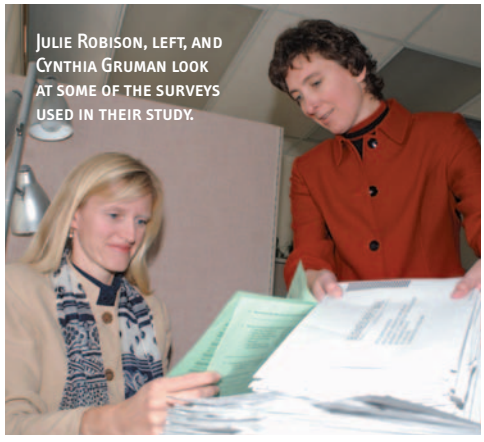
Surveying Our Long-Term Care Needs

Health Center researchers are conducting an assessment of the state's long-term care needs, the first in more than 20 years.

By surveying residents across the state, Center on Aging researchers Julie Robison, Ph.D., and Cynthia Gruman, Ph.D., will document current services, assess recipients, and project the needs over the next 30 years. In addition, they will make recommendations for new programs and changes in existing programs to accommodate the needs they identify.

Long-term care costs are the second-single-largest item in the state budget after education, according to George Kuchel, M.D., director of the Center on Aging. "Any Health Center research that could delay disability and the need to place individuals in an institution by even a modest 5 percent would result in savings to the state of more than $95 million."

"The survey is an opportunity to gather information that will lead to more long-term care options – and more independent lives – for current and future generations of Connecticut residents," says Julia Evans Starr, executive director of the Connecticut Commission on Aging.



JULIE ROBISON, LEFT, AND CYNTHIA GRUMAN LOOK AT SOME OF THE SURVEYS USED IN THEIR STUDY.

Fighting the Flu at the Cellular Level

For Linda Cauley, Ph.D., "flu" season is an annual reminder of the importance of her work. An assistant professor of immunology, Cauley studies cellular mechanisms that provide protection against influenza and other respiratory infections to try to identify cellular targets for a vaccine that could supplement the current vaccines.

The most common vaccine, made from killed virus, is given by injection; the other, containing live, weakened virus, is given as a nasal spray.

"We are trying to identify cellular targets for a slightly different vaccine approach," says Cauley. The strategy involves studying memory cells – CD8 T cells – that help the body defend itself against disease by remembering prior exposure to infectious organisms, such as the flu virus. "Unfortunately, cellular immunity to viral infections lasts only a few months. An important goal of my lab is to determine why the protective immunity declines so rapidly."

Respiratory viruses such as the flu tend to be quick-change artists that rapidly change their outer protein coat, says Cauley. CD8 T cells, which can "see" or identify internal viral proteins, seem to be able to provide protection as long as they are in the right place at the right time. "Our data suggest that protection fails when the cells don't stay in the right place and lose the properties that enable them to kill other infected cells, which are virus factories. If we can identify the mechanisms that control T cell movements, we may be able to prolong their protective abilities."

Their model has implications for other quick-changing virus infections, such as HIV, says Cauley, whose work is supported with a $200,000 grant from the National Institutes of Health.

"Our work is in its earliest stages, but our long-term goal is to provide a new, long-lasting vaccine that protects against changing strains of virus."

profile

a closer look

Patient Care, Research Highlight Career in Maternal-Fetal Medicine

As a high school student, Winston Campbell, M.D., expected to pursue a career in engineering, but soon realized he was better suited to working with a variety of people. After talking with an old family friend and pediatrician, Campbell began thinking about a medical career. Then a documentary about childbirth cemented the idea. "It's how we all started, birth. I wanted to be part of that," he says. "I was awestruck."

But reality, says Campbell, is not always the same. "Problems happen. Most often that's not the case, but birth never ceases to be awe inspiring for me," says Campbell. "We all start out the same, but everyone is unique. Each delivery is awesome."

Campbell, a graduate of the UConn School of Medicine, was introduced to maternal-fetal medicine by perinatologist John Gibbons, M.D., who started the Hartford-area's first maternal-fetal medicine clinical service. After his residency in obstetrics and gynecology in 1981, Campbell completed subspecialty training under the mentorship of David Nochinsom, M.D., who started an accredited maternal-fetal medicine fellowship program at the Health Center. Over the next 12 years, he served in a variety of leadership positions at area hospitals until he was appointed interim director of the division of maternal-fetal medicine at the Health Center and then, two years later, director. For the past 10 years, he has served as the Public Health Service Endowed Chair in maternal-fetal medicine.

In addition to his clinical responsibilities, Campbell is involved in HIV/AIDS transmission prevention research as part of a national clinical trial. He finds special fulfillment caring for women with HIV. "Patients are grateful, especially those who want to fulfill their dreams of having children. They appreciate our support getting the best outcome for their newborns. These women have to deal with their own mortality and the realization that they are probably going to die prematurely, but they also find out that they will be able to have what healthy people have – children, family.

"I see the fear and ignorance that still surround HIV," says Campbell. "There are ways to improve and support infants with HIV and decrease mortality rates. We have made great strides in that area in this country. Transmission has been reduced to about 2 percent.Without intervention, it would be between 25 and 30 percent."

Although clinical work is Campbell's focus, he appreciates the balance research and education offer. "Instead of lectures and presentations, I teach by working with students. It's very rewarding."

Family is another important part of his life. "My father wanted to be a doctor, but it wasn't possible. It meant a great deal to him to see me and my brother go into medicine, and my father meant a great deal to me," says Campbell. "My family and friends give me balance. I don't want to get any younger, but I wouldn't mind staying in my 50s. This is a wonderful time in both my worlds."

—By Jane Shaskan

WINSTON CAMPBELL EXAMINES A PATIENT WITH ULTRASOUND.

a closer look

profile

KEVIN JENSEN WORKS IN TWO LABORATORIES, THANKS TO A SHARED FELLOWSHIP.

Fellowship Links Research, Care

For Kevin Jensen, two labs are better than one. Jensen is the first graduate student in the Health Center to formally hold a fellowship shared by two different departments: the Department of Molecular, Microbial and Structural Biology and the Department of Psychiatry.

Jensen's prior experience as a lab technician in the core laboratory of the General Clinical Research Center made him an ideal candidate for the unique position. At the GCRC, Jensen performed genetic analyses of samples that were collected in a number of psychiatric studies. That's when Henry Kranzler, M.D., and Jonathan Covault, M.D., Ph.D., in the psychiatry department first became familiar with Jensen's work. "I had been discussing the potential for collaborative work with Henry Furneaux in molecular biology, so when Kevin applied to graduate school to work with Furneaux, it was an ideal opportunity to collaborate," explains Kranzler.

A Niantic, Conn., native and UConn graduate, Jensen spent his first year of the dual fellowship doing basic research on microRNA regulation and trying to determine how certain genes contribute to alcohol and drug dependence. MicroRNA typically regulates RNA levels. Research has found they hold the key to important elements of cell biology and may be integral to many aspects of human health. By understanding and harnessing the power of microRNA, researchers are working to develop new treatments and diagnostic products for a wide range of diseases.

At this point in his research, Jensen spends most of his time in Furneaux's lab trying to identify microRNA targets that would modify gene expression. He has weekly lab meetings with a group led by Kranzler and Covault, and often meets informally to discuss his latest findings. "If I identify a variant that actually has a function they're interested in, they'll plug it into a population group and ask whether this variant is associated with a certain addictive behavior or psychiatric illness," adds Jensen.

"Kevin is the glue that holds the research together," says Furneaux. "This dual fellowship allows him to see the clinical side of things, the bigger picture."

"Applying this novel mechanism of gene regulation to substance dependence will hopefully provide some new insights into the causes of addiction," says Kranzler.

Jensen already has presented some of his findings at a scientific conference in Cold Spring Harbor, N.Y., where his research was very well received. He's currently working on a paper that he hopes will be accepted by a major journal.

"It's exciting. I'm gaining the experience of working in two different labs with two different mentors, learning firsthand how basic science research can be translated into treatments that may eventually improve human health," says Jensen.

—By Carolyn Pennington

donors

Jane Grant-Kels

New Memorial Fund Supports Research

With gifts from grateful patients and other friends of the Health Center, The Dr. George H. Grant Department of Dermatology Melanoma Research Fund has been established to benefit skin cancer research. Grant, the father of Department of Dermatology Chair Jane Grant-Kels, M.D., was a much-loved family man, a dentist for more than 50 years and a longtime faculty member at New York University School of Dentistry. He passed away in June.

"Although my father didn't die of melanoma, he was steadfast in his support for my melanoma research and my dedication to our patients at the Health Center," says Grant-Kels, who was featured recently by *Connecticut* magazine and named one of Connecticut's "Top Docs." "This fund has been made possible by the generosity of family and friends of my father and mine, as well as by grateful patients and individuals who have watched their loved ones fight this dreaded disease."

Among the many contributions to the new fund was a leadership gift from Marlene and Jerry Scharr of Essex, Conn., both of whom are patients of Grant-Kels. The Scharrs also are founding members of the Health Center's Cancer Advisory Board.

"Melanoma is a deadly form of skin cancer," explains Grant-Kels. "Unfortunately, once this cancer has metastasized, there are not many good options for therapy. The dermatology department, in concert with the Neag Cancer Center, is dedicated to melanoma prevention, early detection, therapy and gaining a better understanding of the disease from a molecular level that might one day advance treatment. Research at the bench and clinical trials are needed. Private philanthropy is desperately needed for continued medical research and education to help in this endeavor."

Memorial and honorary funds can be established through the Health Center Development Office and are a meaningful way to pay tribute to a friend, mentor or loved one. For further information, please contact Sally Weisman, executive director of development, at (860) 679-3418 or via e-mail at sweisman@foundation.uconn.edu.

Stabenau Gift Launches Lecture Series

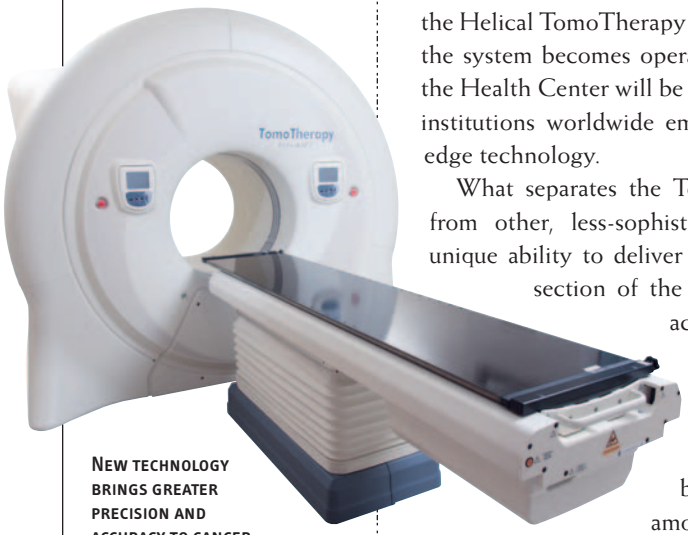
Internationally renowned psychiatrist Robin M. Murray, M.D., delivered a lecture entitled "New Frontiers in Psychiatry" on Sept. 29 to launch The Stabenau Lectures, established with a gift from James R. Stabenau, M.D., the Health Center's first chair of the Department of Psychiatry, and his wife, Barbara. Murray, professor at the Institute of Psychiatry at King's College, London, is known for his extensive research in schizophrenia and bipolar disorder.

Leighton Huey, left, James Stabenau and Robin Murray

giving for the future

Gift Supports New Cancer Treatment

Thanks to a $2.5 million gift from prominent UConn supporters Carole and Ray Neag, the Health Center is poised to become the first medical facility in New England to offer patients an innovative new cancer treatment known as the Helical TomoTherapy Hi-Art System. When the system becomes operational later this year, the Health Center will be one of only about 100 institutions worldwide employing this cutting-edge technology.



NEW TECHNOLOGY BRINGS GREATER PRECISION AND ACCURACY TO CANCER TREATMENT AT THE HEALTH CENTER.

What separates the TomoTherapy machine from other, less-sophisticated systems is its unique ability to deliver radiation to a precise section of the body with a level of accuracy never before possible. This precision not only allows for more effective treatment of tumors, but also reduces the amount of healthy tissue exposed to the radiation.

"What this means for our patients is more accurate treatment," explains Robert Dowsett, M.D., division chief of radiation oncology at the Health Center. "Precision and accuracy will make a big difference in treating some tumors that are adjacent to critical organs – for example, cancer in the head and neck, brain or prostate."

Dowsett notes that even the most advanced existing treatment methods for head and neck tumors still expose the salivary glands to significant radiation. Over time, this can lead to discomfort and dental problems as the glands dry out. By focusing the radiation more exactly, those harmful side effects will be greatly reduced.

In preparation for the treatment, detailed 3-D imagery is taken of the patient. Doctors and technicians use special software to "paint" on the image, identifying the specific areas to receive radiation and those to remain untouched. Unlike previous technologies that use wide bands of radiation from a limited choice of directions, TomoTherapy uses narrow rotating "pencil" beams of radiation to treat the tumor from all sides with specifically calibrated levels of intensity.

Carolyn Runowicz, M.D., director of the Carole and Ray Neag Comprehensive Cancer Center and immediate past president of the American Cancer Society, agrees that TomoTherapy will be a tremendous asset to the Health Center's patients and its medical staff. "This technology fits in perfectly with our mission to provide state-of-the-art care to Connecticut residents."

The Neags' interest in TomoTherapy comes from Carole Neag's own experience with radiation treatment and their desire to establish the Health Center at the forefront of cancer research and technology. "As we better understand cancer," she says, "the Health Center will be on the cutting edge. That motivated us to make the gift."

"Private philanthropy is the necessary ingredient for transforming the Health Center from being very good to being great," says Peter J. Deckers, M.D., executive vice president for health affairs and dean of the medical school.

Beach Society Luncheon

The Health Center hosted a luncheon Sept. 15 to celebrate the creation of its Circle of the Charles Lewis Beach Society, which honors individuals who have made a planned gift to the Health Center. The luncheon will be an annual affair to highlight the innovative research, education and clinical initiatives under way.

HENRY B. C. LOW, JIM CALHOUN AND FRED HOLLFELDER, LEFT TO RIGHT, LONGTIME HEALTH CENTER SUPPORTERS.

Support Research: The Stem Cell Institute

The University of Connecticut is embarking upon a new era in regenerative medicine with the launch of its Stem Cell Institute. This research is perhaps the most exciting medical technology of the 21st century; and holds the promise of treatments and cures for more than 70 major diseases and conditions that affect millions of people – including diabetes, Parkinson's, Alzheimer's, and degenerative muscle and bone disorders.

Capitalizing on existing research, educational and clinical strengths, and more than $12 million in state grants for embryonic and human adult stem cell research, UConn is boldly moving forward to raise private support for state-of-the-art research facilities, advance scientific programs, and recruit innovative researchers and physician-scientists.

To learn about supporting stem cell research at UConn, as well as naming opportunities within the institute, call Magda Stayton at (860) 679-1122 or e-mail supportuchc@foundation.uconn.edu.

Calhoun Advisory Council Gathering

The Leadership Advisory Council of the Pat and Jim Calhoun Cardiology Center gathered Oct. 7 at the Storrs home of alumni and supporters Christine and Phillip Lodewick to celebrate the latest accomplishments of the center's physicians and faculty. The Calhouns were on hand for the event, along with friends and supporters of the Health Center.

Lea's Foundation Center for Hematologic Disorders

The Health Center has received a pledge of $1.25 million from a Hartford foundation to establish a new center to study and treat blood diseases. The Lea's Foundation Center for Hematologic Disorders will focus on advancing research and improving treatment and care for patients with benign and malignant blood disorders. The center also will provide a dedicated space for the children of patients who come to the Health Center for care, allowing patients to seek treatment without the added stress of child care concerns.

Leukemia is a disease of the blood-forming organs, characterized by the proliferation of immature white cells causing depletion of red cells and platelets. There is no known cure for leukemia and its related cancers of lymphoma, Hodgkin's disease and multiple myeloma. It is estimated that in the United States alone more than 35,000 new cases of leukemia will be diagnosed in 2007, with more than 22,000 deaths attributed to the disease this year.

"Through this gift, we will be able to translate the latest research directly into patient care, what we call 'from-bench-to-bedside' research," explains James Thibeault, director of signature programs at the Health Center. "There aren't too many blood centers affiliated with a cancer center, such as the one we're creating here. There's just a tremendous demand for these services."

Carolyn Runowicz, M.D., director of the Carole and Ray Neag Comprehensive Cancer Center at the Health Center, says the synergy of research and treatment also will attract top faculty. "This allows us to recruit high-level physicians and national experts in hematological disorders to the UConn Health Center," she explains. "Connecticut residents will benefit tremendously because they will be able to access the leading researchers in the field."

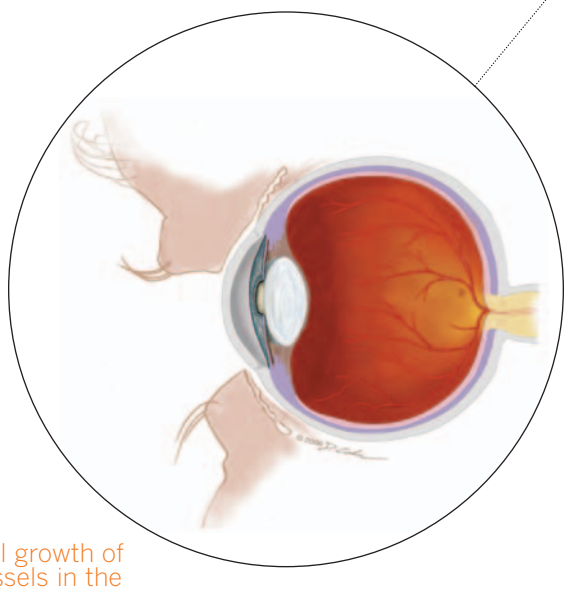
Lea's Foundation for Leukemia Research was established in 1998 to honor the memory of Lea Michele Economos, who fell victim to leukemia at the age of 28. It was her dying wish to find a cure so that others would not face the hardship she endured. The goal of the foundation is to help eradicate leukemia and its related diseases. The funds raised each year by the foundation are awarded to scientists who are investigating promising avenues of research.

Michael Economos, who, along with his wife, Bess, created the foundation in their daughter's memory, notes that the organization's board of directors has long been impressed with the services offered at the Health Center. "Since the majority of the funds were collected locally, and we live in West Hartford, we wanted to identify and support a premier local institution such as the UConn Health Center," he says. "Our commitment of $1.25 million was a difficult decision and, at the same time, an easy one. We believe Dr. Runowicz's leadership and dedication will make this a success and an asset to the community. We share UConn's aspirations and feel fortunate to be able to participate."

An annual Valentine's Day Ball serves as the primary fund-raising event for the foundation. The most recent event raised more than $180,000. For more information, please contact Lea's Foundation at 860-727-8998 or visit the website at www.leasfoundation.org.

MAPPING THE MYSTERIES OF THE VASCULAR SYSTEM

HEALTH CENTER SCIENTISTS STUDY THE ROLE OF BLOOD VESSELS IN HUMAN DISEASES



Abnormal growth of blood vessels in the retina occurs in diabetes and other diseases.

ILLUSTRATIONS BY DELILAH R. COHN

By Jim H. Smith

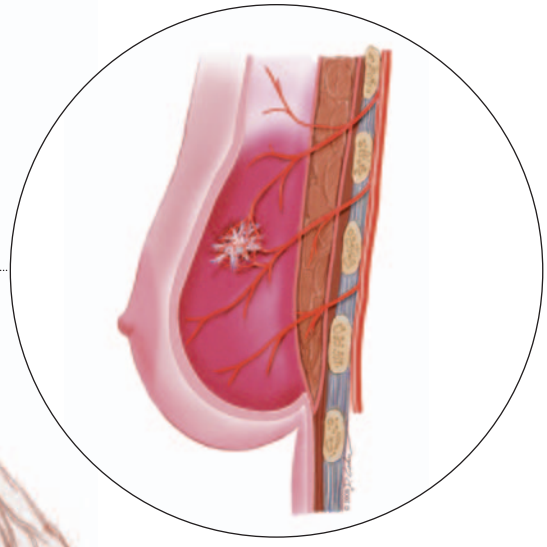
Timothy Hla, Ph.D., spends much of his time thinking about an enzyme called cyclo-oxygenase. You may know it by its more common name, Cox-2. A couple of years ago it made national news when some of the drugs aimed at it were taken off the market.

The drugs, Vioxx, Bextra and Celebrex, were Cox-2 inhibitors that worked to mitigate the effects of this naturally occurring enzyme and its production of prostaglandins, chemicals that activate cells within the body and leave a trail of inflammation in the process.

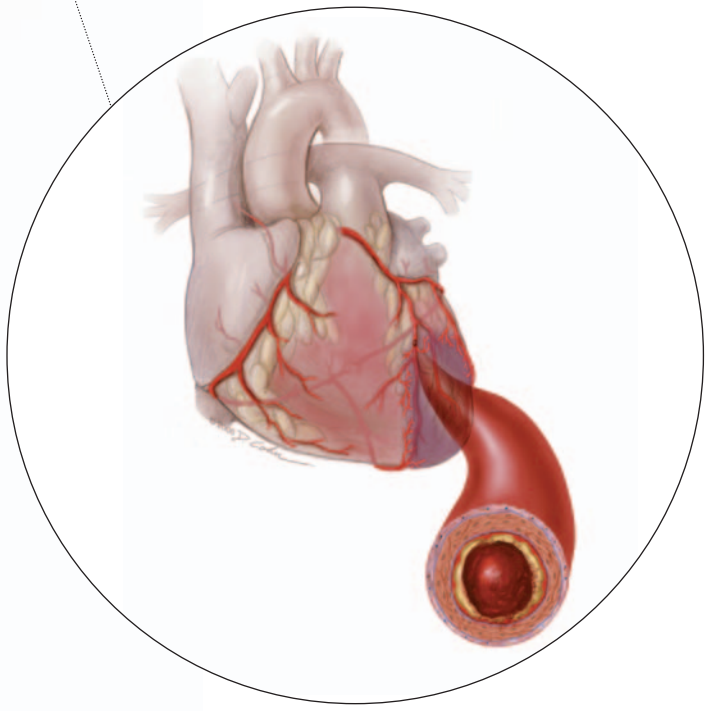
All three had been shown to have striking potential for use in treating a variety of inflammatory disorders. They were approved by the Food and Drug Administration for use in treating pain and inflammation in rheumatoid arthritis without the side effects of inducing stomach ulcers, but Hla is quick to note that they also are promising for people with such diverse diseases as colon cancer and Alzheimer's. And researchers suspect their value may be much broader.

But there's a catch. These drugs also are known to increase the risk of heart attacks, though no one is sure why. It's a question that needles Hla.

Plaque (yellow) and a clot (dark red) can reduce blood flow to surrounding tissue (grey). Over time, new blood vessels (bright red) sprout to repair some of the damage.



New blood vessels (bright red) sprout to nourish a tumor (white), and help it grow and spread (angiogenesis).



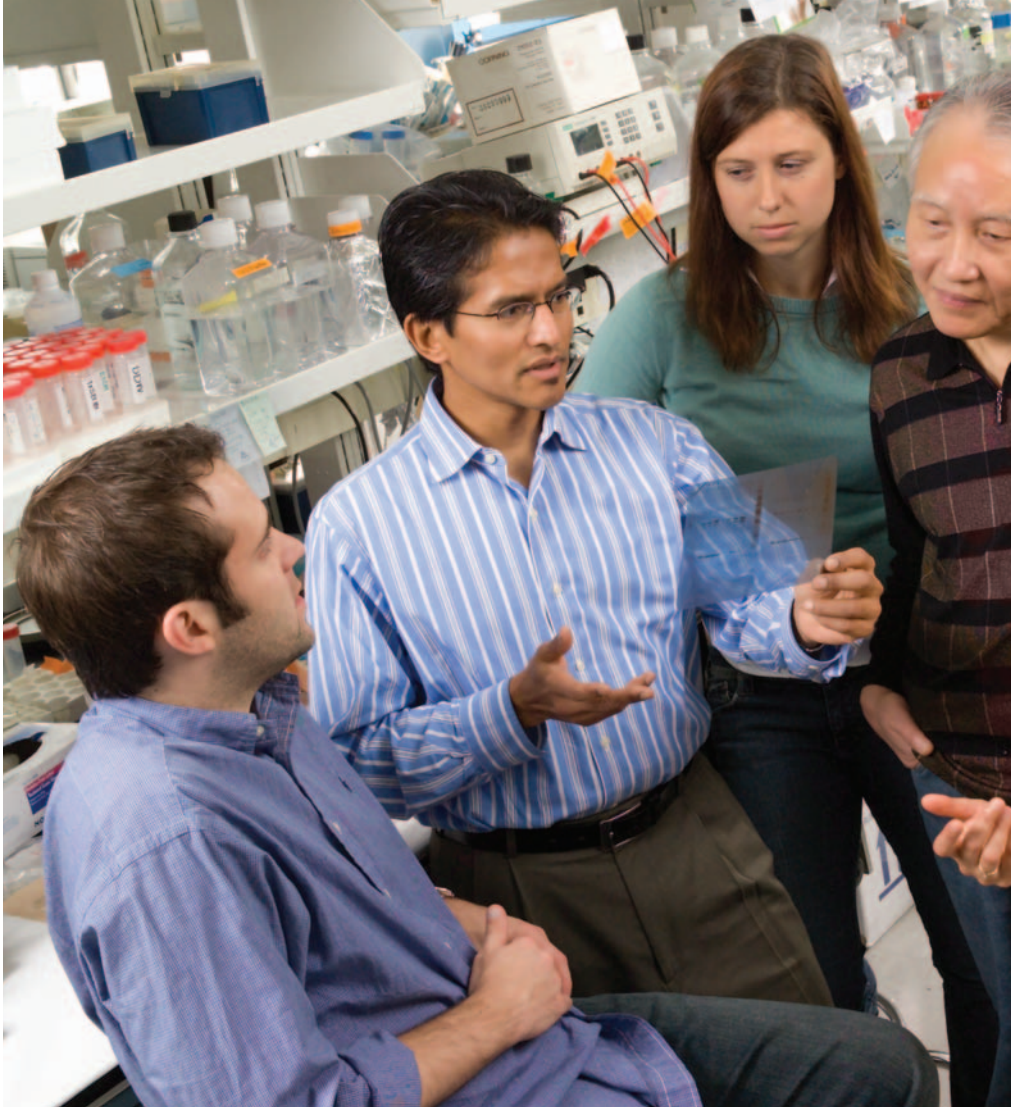
A clot (dark red) in the heart's left anterior descending artery reduces blood flow and destroys surrounding tissue (grey). Over time, new vessels (bright red) sprout to repair some of the damage.

A Better Understanding

It's been 10 years since Hla arrived at the Health Center, where he is head of the Center for Vascular Biology. Since then, he has steered the investigation of vascular biology – the study of the cells that make up the body's blood vessels –through a successful transition from compelling idea to a fully staffed center. Occupying an entire floor of the Health Center's academic research building, the center is an important player in this rapidly expanding field. "When I came here, there was no focused effort in vascular biology," says Hla. "We had a couple of labs working on the vascular system, but there was limited space and very little collaboration."

Today, thanks to Hla's efforts, the center houses six faculty members, each of whom is funded by individual grants, plus 55 staff members. Since 2002, it has received a program grant of $1.8 million in annual funding from the National Institutes of Health. That money supports interdisciplinary research into the role that blood vessels play in a host of diseases.

"Interdisciplinary" is a key word here, since the research going on in the center offers hope for people suffering from many different diseases and health problems. "The vascular system is essential for growth, so it is one of the first to develop when human stem cells differentiate during fetal development," says Hla. "It affects every organ system in the body. In the last 10 years, there has been an effort to understand the vascular system more comprehensively.



Our research has implications for diabetes, heart disease, stroke, cancer, arthritis."

What the researchers seek, he says, is "a better understanding of the molecular mechanisms of blood vessels in normal physiological conditions and in disease." Their basic research explores such health areas as tumor angiogenesis – the growth of new and often specialized blood vessels that support the growth of tumors; lipid mediators – hormone-like substances made from the body's store of fats; signal transduction – the study of how the body's cells convert one kind of signal or stimulus to another, within or between cells, through biochemical reactions; the biology of blood vessel development; and the processes through which cancer cells metastasize or spread to distant organs. The findings of their work may propel learning and medical advances along untold trajectories.

Interdisciplinary Research

Hla's colleagues were handpicked to collaborate and build the optimal research environment. Each brings a different kind of high-level expertise to their collective work. Together, they are tackling the dynamics of vascular biology from every angle.

Henry Furneaux's laboratory, for instance, is devoted to studying the mechanisms that regulate the expression of genes after transcription, the process through which enzymes enable RNA to regulate gene expression.

Linda Shapiro and her team are researching the function of an enzyme called CD13/APN that plays an important role in the formation of blood cell components by splitting proteins to regulate them.

Jason Michaud, Timothy Hla, Cheryl Habrukowich, Ming-Tao Wu and Mallika Ghosh discuss work under way in a lab in the Center for Vascular Biology.

Kevin Claffey's laboratory studies angiogenesis, the growth of blood vessels in tumors.

And Guo-Hua Fong is exploring why many blood vessel disorders result from inappropriate reactivation of cellular mechanisms that propel development of the vascular system at the embryonic stage.

Each lab is capable of producing results at any time that can inform the work of the other labs or other researchers worldwide. Consider, for example, the work of Hla's colleague, David Han, Ph.D. Han is perfecting the use of powerful technology to identify cellular proteins. An associate professor of cell biology, Han directs the CVB's proteomics and biological mass spectrometry core.

Proteomics is the study of proteins, their structures and their roles in the sometimes mercurial biochemistry of cells. It's an enormously complex area of research, since proteins – unlike genes – differ dramatically from cell to cell throughout the body. Since they also are often in flux within individual cells, identifying them can be a bit like ferreting out masters of disguise.

But it is research of the most essential sort, since the role proteins play in both regulating the body's health and triggering the onset of disease cannot be understated. Han has adopted mass spectrometry as a tool to improve the researcher's odds of identifying these elusive compounds. The spectrometer is perfectly suited to the task. Ionizing extremely minute samples of tissue and cellular contents, it teases out its compounds by evaluating their differing masses and the relative abundance of each.

Han has perfected ways of using mass spectrometry to assess microscopically thin paraffin slides, analyzing thousands of proteins simultaneously. It is a process with positive implications for research concerning the role that proteins play in such disparate diseases as atherosclerosis or prostate cancer. And it can expedite the work of everyone on Hla's team.

Hard Digging

Hla's own research into Cox-2 is another example. "Cox-2 inhibitors appear extremely promising to prevent and treat cancer and Alzheimer's disease," he wrote in a *Boston Globe* commentary published shortly after the Vioxx withdrawal. "They control inflammation in the brain and inhibit new blood vessel growth in cancers. Therefore, Cox-2 inhibitors may provide a new weapon in the control of those diseases."

Since Cox-2 seems to play an instrumental role in the vascular system's carefully balanced capacity to cause clotting, Hla is interested in how prostaglandins can turn off that important mechanism. Convinced that a single molecule may be pivotal to this process, he has isolated a cellular compound that seems to have a positive impact when tested on laboratory mice.

In another line of research, he has demonstrated the importance of Sphingosine 1-phosphate (S1P) in such processes as embryonic development and the growth of new blood vessels. A lipid mediator, S1P has been shown to have the capacity to regulate tumor development in lab mice.

The processes through which Hla has pursued this complex research, and his findings, may have applicability for other researchers' work, not only in the center, but at research facilities worldwide. Hla and his colleagues are engaged in basic science, the hard, necessary digging that builds foundations for researchers everywhere who seek to understand the complex vascular system. Their findings – passed on to the next generation of physicians in their classes and to the broader scientific community through published research – may lead to treatments and cures for any disease that relies upon the vascular system.

LEARNING THRO

AS MEDICAL STUDENTS AT THE Health Center, Christine Skurkis and Sarah Schlegel realized they shared two rather unique interests: a love of sign language and a deep desire to help children with special health care needs. So they joined forces and created a new health and wellness program for youngsters with hearing loss at the American School for the Deaf in West Hartford, Conn.

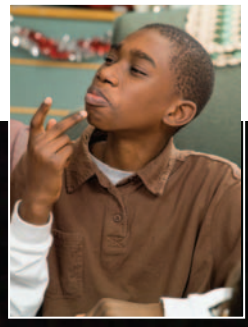
"The curriculum we developed for ASD students covers eight different topics, ranging from peer pressure to sexually transmitted diseases," says Schlegel. "Developing it was probably the most eye-opening experience I had in medical school. It was extremely challenging, yet rewarding."

It was challenging because English is a second language to most deaf children; their main communication is via sign language. Many English words don't translate into sign language, so reading and understanding more complicated medical materials can be difficult.

"Hearing children are exposed to health and medical issues from so many different sources," says Skurkis.

CHRISTINE SKURKIS AND SARAH SCHLEGEL, MIDDLE, CHAT INFORMALLY WITH ASD STUDENTS, LEFT TO RIGHT, DEQUAN THOMAS, KANGNI HE, MARIA DADARIO AND RODERICK BLACKWELL.

UGH SERVICE



Community-based education helps medical students become knowedgeable about the patients they will ultimately serve.

By Carolyn Pennington

"But deaf children may only learn it in school, and most go into the classroom with a lot of misconceptions or incorrect information."

Setting the record straight was only one hurdle the women had to tackle. Learning how to effectively teach deaf children was another. Skurkis and Schlegel soon learned that repetition and visual aids were key to getting their message across.

"When hearing children are listening to a teacher and look down to take notes, they can still hear the teacher talking. When deaf children take their eyes off the teacher, all communication ends," explains Skurkis. "When they look back, the teacher may be onto another topic. That's why repetition and actually drawing pictures on the board are so helpful."

MAKING THE EXTRA EFFORT

The women weren't fluent in sign language, so ASD provided a translator and offered Skurkis and Schlegel free sign language classes. The extra effort the women put into learning their students' language really helped them bond with them.

"It was an excellent program, and our students were immediately taken with Chris and Sarah's enthusiastic approach to life skills that would serve them well with their future medical needs, and overall awareness of health and wellness issues," says Kathleen Jenkelunas with ASD. "With the program, our students are more apt to approach medical treatment with optimism, knowing they can communicate their needs on a meaningful level."

Stacey Brown, associate director of community-based education at the medical school, initially helped Schlegel and Skurkis get the program

Stacey Brown, left, and Judy Lewis.

up and running; and now guides other medical students who are interested in volunteering for the ASD project.

"To volunteer for ASD, the students need to feel comfortable teaching with a translator or they need to take the time to learn sign language," says Brown. "The ones who volunteer are passionate and committed."

STRATEGIES FOR A SILENT WORLD

Maureen Pons is one of those committed students. Like Skurkis and Schlegel, Pons shares an interest in American Sign Language. "I realize that people who live in a world without sound are probably quite vulnerable in terms of knowledge about health and access to health care," says Pons. She's been volunteering at ASD for the last couple of years and is currently using her independent project to add an important element to the curriculum. "The goal of my project is to determine how comfortable the students are with going to the doctor, and how important they think it is to know and share their health history. I will try to give them some strategies to make their visit to the doctor's office a little less frightening," explains Pons.

"Community service is not a new concept for our students," says Judy Lewis, director of community-based education at the medical school. "We've found that nearly 80 percent of incoming medical students have volunteered while in high school or college."

The medical school's formal community-based education program started in 1990 when a group of students decided to help the homeless in Hartford, Conn. They opened a medical and dental clinic at the South Park Inn, a city shelter; and it became the school's first community service project.

As it became clear that other students would benefit from volunteer work, 15 hours of community service became a graduation requirement. "We were well ahead of the curve," says Lewis. "UConn was one of the first medical schools to require a certain number of hours of community service by students in order to graduate."

Now the Health Center's community-based education curriculum contains more than a dozen programs, including the Migrant Farm Workers Health Clinic, the YMCA Adolescent Clinic, Science Mentoring Program, Habitat for Humanity and a health education program for Hartford middle school students. Nearly 300 local and state agencies across Connecticut benefit from the students' work.

The South Park Inn Clinic still draws the most volunteers working the greatest number of hours. For instance, students in the class of 2003 spent more than 2,000 hours volunteering at South Park during their four years of medical school.

MAKING BETTER DOCTORS

The goal, in the end, is to make the students better doctors. "I think it gives them a better understanding of the difficulties some people face. Physicians need to be knowledgeable about the communities in which they practice, and the best way to learn that is through personal involvement," says Lewis. "And we certainly hope they continue their good works when they leave school."

STUDENTS PROVIDE MEDICAL SCREENINGS AND INFORMATION DURING HEALTH FAIRS AT THE OLD STATE HOUSE IN HARTFORD, CONN., TOP; AND AT A FARM IN THE CONNECTICUT RIVER VALLEY, ABOVE.

Skurkis and Schlegel certainly have. They are thrilled that the program they started is now one of the core projects medical students can choose when fulfilling their community service requirement. Skurkis, who is now chief pediatric resident at Connecticut Children's Medcal Center in Hartford, Conn., makes sure the program continues by aiding in the recruitment of current medical students for the program. Schlegel, who is doing a fellowship in pediatrics at Yale, has formed a nonprofit group that regularly supplies ASD with donated books. They would like to join forces again to do specialty health workshops for the ASD students on an intermittent basis.

"I feel we have a strong connection to them," says Schlegel. "We related to them above and beyond our assignment."

"We found a project that was really interesting to us; it wasn't something we felt we were forced to do," says Skurkis. "We learned to make it part of our lives, which I believe is the goal of the community service requirement."

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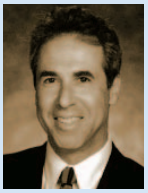

Jonathan E. Gottlieb '77 M.D.
Dr. Gottlieb joined Barnes-Jewish Hospital at Washington University Medical Center in St. Louis, Mo., as chief medical officer in June 2006. He is board certified in internal medicine, pulmonary disease and critical care medicine, as well as being a certified advanced cardiac life support and advanced trauma life support provider.

G. Thomas Marshall '92 M.D.
Dr. Marshall completed his training in general surgery at Maine Medical Center in Portland; and a fellowship in surgical endoscopy at Mt. Sinai Medical Center in Cleveland, Ohio. Dr. Marshall's interests include a broad range of general surgery, including laparoscopy and endoscopy. He has been on the Franklin Memorial Hospital medical staff since 1997 and practices at Franklin Surgery in Maine.

Anna C. Freitag-Kedersha '94 M.D.
Dr. Freitag-Kedersha has been voted a Top Doctor by *Connecticut* magazine. This is the third consecutive year she has received the honor. Dr. Freitag-Kedersha is a board-certified endocrinologist with a practice in Stamford, and hospital privileges at Norwalk and Stamford hospitals. She recently discussed diabetes at the AARP Annual Health Symposium. Dr. Freitag-Kedersha was awarded fellowships in the American College of Physicians and the American College of Endocrinology.

Elizabeth Basil '98 D.M.D.
Dr. Basil has opened a practice focusing on family and cosmetic dentistry. She has earned the Academy of Operative Dentistry Award for outstanding achievement, the American Association of Endodontics Award for exceptional ability and the Academy of Dental Materials Award for excellence. Dr. Basil resides in West Hartford, Conn.

CLASS OF 2001

alumni profile

ENVISIONING BETTER CARE

Glaucoma patients around the world benefit from a form of laser treatment invented by Mark Latina, M.D., '80.

Called selective laser trabeculoplasty (SLT), the procedure targets specific cells within the drainage passageway of the eye to reduce pressure associated with glaucoma, a leading cause of blindness. Using a special wavelength and energy, the laser affects only pigmented or melanin-containing cells of the eye and stimulates improved flow of fluid that lowers pressure associated with glaucoma. "The procedure works by creating a biochemical response without spreading damaging heat through surrounding tissue," says Latina.

"This laser procedure is considered a primary therapy by many ophthalmologists. In many cases, there's no need for medicine," says Latina, who routinely performs the procedure at his private practice office in Boston.

While in medical school, Latina initially saw himself going into nephrology. Internship changed his mind. "I decided that I was interested in a surgical specialty that used more technology," says Latina; who applied for and received a residency in ophthalmology and, later, a fellowship at the Massachusetts Eye and Ear Infirmary at Harvard. He credits

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More News About Classmates:
A full listing of class notes is available at http://alumni.uchc.edu. To submit class notes, send them to cgway@foundation.uconn.edu.

MARK LATINA

UConn's School of Medicine for its broad-based curriculum that allowed him to get involved in research, and exposed him to a variety of specialty and subspecialty clinical programs. At the medical school, "I did some research in Jay Glasel's lab and I really enjoyed it." Glasel remembers him well. "He was one of the smartest medical students I met in my career at Columbia University medical school or here at the Health Center," says Glasel, professor emeritus in the microbial, molecular and structural biology department. "He took to doing basic research immediately and without a great deal of supervision."

Latina says he became interested in the use of lasers as a chemistry undergrad at Tufts University and then, more specifically, in the use of laser light on the eye during his fellowship year at the Howe Laboratory of Ophthalmology at the Massachusetts Eye and Ear Infirmary at Harvard. He worked on one research project to develop a new surgical treatment for glaucoma that involved dye-enhanced laser sclerostomy, which used the laser to perforate the sclera or white of the eye. The procedure made it to the patent and license stages. "The results were not effective enough to proceed," says Latina, who then began working on SLT. "I didn't actually think it was going to work," he says of the early stages of his research. "That's the nature of research. You try things and you make errors, and you learn from them."

> **"That's the nature of research. You try things and you make errors, and you learn from them."**
> —MARK LATINA

Now the laser procedure he invented is used all over the world. "It's used with and in place of medication," says Latina, an associate clinical professor of ophthalmology at Tufts University School of Medicine. "It's a noninvasive therapy that can be done in an office setting," says Latina. "Patients love it."

—By Kristina Goodnough

John E. Lagner '98 D.M.D.
Dr. Lagner was awarded the 2006 New Dentist Leadership Award by the New York State Dental Association (NYSDA) Council on the New Dentist. Given annually, the award recognizes a dentist less than 10 years out of dental school who is actively involved in organized dentistry and in the community. He is a member of the Suffolk County Dentist Society, a component of the NYSDA, and is currently serving on its Executive Board and as Treasurer. Dr. Lagner is chairperson of the Suffolk County Dental Society's New Dentist Committee, founder of Suffolk County's New Dentist Study Club and serves on the NYSDA Council on the New Dentist. Dr. Lagner practices general dentistry in East Northport and is an assistant clinical professor at the University of Stony Brook School of Dental Medicine. He also will serve as faculty advisor for the university's chapter of the American Student Dental Association. Dr. Lagner volunteers with the Special Olympics and in a variety of community activities. He is a member of the Academy of General Dentistry and a Scientific Research Society member of Sigma Xi.

Jonathan S. Lovins '00 M.D.
Dr. Lovins has been named associate attending of the Department of Medicine at New Britain General Hospital in New Britain, Conn. Dr. Lovins is director of New Britain General's Hospitalist Program.

alumni profile

Fighting Infectious Diseases

Zygmunt Dembek at the U.S. Medical Research Institute of Infectious Diseases at Fort Detrick, Md.

An epidemiologist in Connecticut's Department of Public Health, Zygmunt Dembek eyed infectious diseases in the state and across the country for more than 15 years. Now, as a lieutenant colonel in the U.S. Army Reserves, he finds himself keeping watch on a more global front and training others to do the same.

Dembek, who was mobilized to active military duty last year, now serves as director of the education and training and the biodefense epidemiology programs for the Operational Medicine Department in the Division of Medicine at the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, Md.

In that role, he has investigated zoonotic infectious disease outbreaks, conducted training for clinicians and laboratory scientists on bioterrorism agents and diseases, served as a subject matter expert and program host for a national telecast about botulinum toxin, and has edited a major military biodefense textbook.

Last year, he and four other public health practitioners traveled to the country of Georgia, formerly part of the Soviet Union, to help officials plan and train for a possible influenza pandemic. Working with government officials and health care and emergency management personnel, Dembek and other team members helped simulate the increased health care needs during an outbreak, identify available resources and plan the response. The exercise was part of the Defense Threat Reduction Agency's program in Georgia.

"Parts of the former Soviet Union are kind of like our Wild West," says Dembek. "There are huge rural areas with lots of open space, with naturally occurring diseases such as anthrax and plague. The former Soviet Union spent much of its treasure building weapons. Now, we're helping many countries get rid of those materials, and train their scientific and medical communities in peaceful work such as disease surveillance."

A biochemist by training, Dembek joined the state Department of Public Health in 1986. He coordinated various state and hospital-based disease surveillance systems, led training exercises for the state's response to a flu pandemic, and developed the state's first bioterrorism and pandemic influenza plans. While working at the department, he received a Ph.D. in nutritional science in UConn's College of Agriculture and Natural Resources in 1995.

Dembek began teaching a course in "Food and Waterborne Diseases" in UConn's Graduate Program in Public Health in 1999. In the spring of 2001, he initiated a course in this program entitled the "Public Health Response to Bioterrorism." It was one of the few such graduate courses taught nationally before the Sept. 11 attacks. He also decided to go for an M.P.H. "Once I began the process, it was very enjoyable," says Dembek, who received the degree in 2005.

"UConn's M.P.H. program is offered in the evenings. It's designed specifically for working professionals. When you have physicians, sanitarians, nurses and others together in the same classroom, you really begin to understand what you need to learn to practice public health well. I enjoyed it immensely."

The next overseas project for Dembek while on active duty is likely to be a trip to the Democratic Republic of the Congo to help train health care workers about human monkeypox virus infections. "The professionals we're working with are extremely grateful for the training and assistance we provide. I receive tremendous personal satisfaction from this work," says Dembek.

—By Kristina Goodnough

Craig Rodner '00 M.D.
Dr. Rodner has been appointed assistant professor in the Department of Orthopaedics at UConn Health Center. He completed a fellowship in hand and wrist surgery at Brown University/Rhode Island Hospital in Providence, R.I. Dr. Rodner sees patients in Farmington and at UConn Health Partners in East Hartford. He lives in West Hartford, Conn., with his wife and two children.

Maui, Hawaii. Dr. Berube is a board-certified periodontist with a private practice in Denton, Texas. The couple resides in Denton, Texas.

Brian Riordan '02 M.D.
Dr. Riordan has joined the medical staff of Danbury Hospital in Danbury, Conn., specializing in physical medicine and rehabilitation. Dr. Riordan has expertise in musculoskeletal medicine, stroke and brain injury rehabilitation, and spasticity management. He lives with his wife and two children in Stratford, Conn.


CLASS OF 1986

Matthew H. Wilkinson '02 M.D.
Dr. Wilkinson married Jessica L. Metzler on June 11, 2005, at St. Timothy Church in Houston, Texas. He is employed by Phoenix Children's Hospital. The couple lives in Scottsdale, Ariz.

Vincent J. Michael '03 D.M.D.
Dr. Michael married Stacey Baglio '04 D.M.D. at St. Peter's Church, Danbury, Conn. The couple makes their home in Farmington, Conn.

Jessica S. Payton '03 M.D.
Dr. Payton has joined the Pediatrics Department at the Cheshire Medical Center in Keene, N.H. Dr. Payton has a background in community service activities, has worked on numerous pediatric research projects and has had her research published in national medical journals. She has a strong interest in pediatric sports medicine, caring for children from infancy through adolescence, and is a member of the American Academy of Pediatrics.


CLASS OF 1996

Joseph M. Romanello '00 M.D.
Dr. Romanello recently joined the medical staff of Westerly Hospital, in Westerly, R.I. He is board certified in internal medicine and board eligible in nephrology.

Patricia Berube '01 D.M.D.
Dr. Berube and Joseph Smith were married May 26 in


CLASS OF 1991

Neil D. Salesky '04 D.M.D.
Dr. Salesky has joined the dental practice of Dr. Michael Reisman in Plantsville, Conn. He is a member of the American Academy of Cosmetic Dentistry, American Academy of General Dentistry, Dental Organization for Conscious Sedation and the Connecticut State Dental Society; and has received awards from these societies for his proficiency in dentistry.

Michael David Caban '06 D.M.D.
Dr. Caban was inducted into the National Dental Honor Society, Omicron Kappa Upsilon. Dr. Caban currently is enrolled in an orthodontic residency program at the State University of New York at Buffalo School of Dental Medicine.

Taking Dental Care on the Road

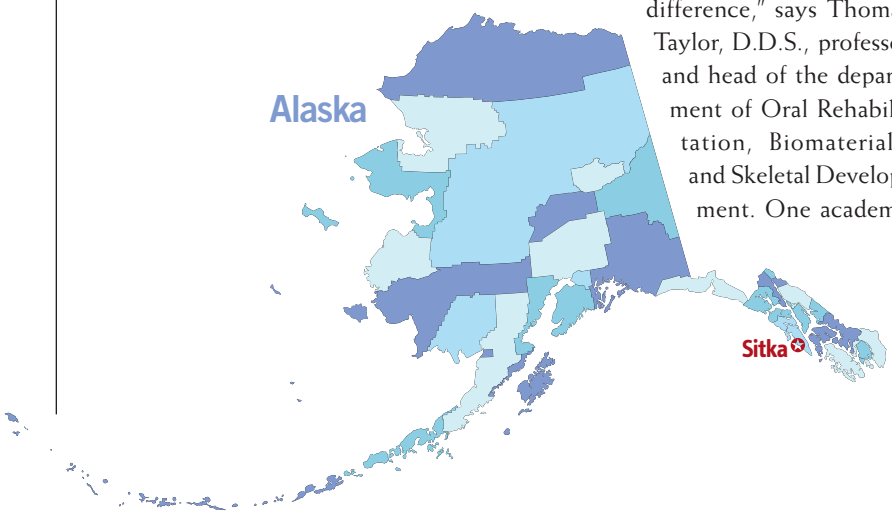
The Alaskan coast may seem an unlikely place for dental training, but each summer for the past 13 years, prosthodontics residents in the School of Dental Medicine have traveled to a clinic there to make dentures and, more recently, dental implants for native Americans.

The trip to the South East Alaska Regional Health Center in Sitka is part of residents' third year curriculum.

"They do a lot of laboratory work in a short period of time, which creates camaraderie with the residents and faculty," says John Agar, D.D.S., director of advanced education in the prosthodontics program. "They also learn they need to contribute to underserved people and to give back to the community."

The trip began in the early 1990s, when members of the Academy of Prosthodontics were "looking for something to do to make a difference," says Thomas Taylor, D.D.S., professor and head of the department of Oral Rehabilitation, Biomaterials, and Skeletal Development. One academy member recommended "going to a part of this country where dental care was limited and making dentures for indigent people. And so they went, to Indian reservations in several Western states. At first, just faculty members made the trek. But residents soon became an integral part of the team – and Alaska the prime destination.

Three faculty members "usually go up as clinicians, and we bring three prosthodontics residents as lab technicians to make the dentures," Taylor explains. "We start work Monday morning and by Friday morning, we've made 20 to 25 upper and lower dentures for 15 to 20 people from their 20s to early 90s. Some of them have traveled long distances from remote islands for care."



Dental companies donate the materials; and this year, for the first time, several clients received dental implants from David Shafer, D.M.D., chairman of the division of oral maxillofacial surgery; and David Morgan, one of his residents.

Sureeporn Charudilaka, a third-year resident from Thailand who went on the trip, found the lab work "more intense" than she anticipated, but satisfying nonetheless. "We met some really nice native Americans, who truly appreciated what we were doing," she says. "A dentist there may take about six months to do what we do in a week." Charudilaka says she also "learned some tricks" of the trade by watching faculty members – and colleagues.

The trip wasn't all work. The travelers took some time off to fish for salmon and halibut. "It was a good experience," Charudilaka says, adding she'll remember it as one of the highlights of her prosthodontics residency. *—By Karen Singer*

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Prepping for an Exam

Professor and Dean Bruce Koeppen reviews slides with students in preparation for a tissue histology practical exam.

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