



OLD DOMINION UNIVERSITY

COLLEGE OF HEALTH SCIENCES

I D E A F U S I O N

HEALTH SCIENCES NEWSLETTER

SEPTEMBER 2012

Message from the Associate Dean

Scholarship and research are central to the role of faculty in a research intensive university. Yet, when one thinks about research the first thought might be that of the mad scientist working in a laboratory pouring over a microscope and petri dishes. Those of us in academia know that research and scholarship mean different things to many people and that research represents just one aspect of the faculty member's role. Boyer recognizing the value of faculty scholarship embraces an inclusive perspective that of discovery, application, integration and education. The Boyer Model adopted by a number of colleges offer a broader description of scholarship which is considered to comprise three forms and four functions. The three forms (research, teaching and service and four functions (discovery, application, integration and education) all focus on addressing the mission of academia. Over the next few months we will highlight the forms and functions of scholarship beginning with research as the process of discovery in this month's newsletter.



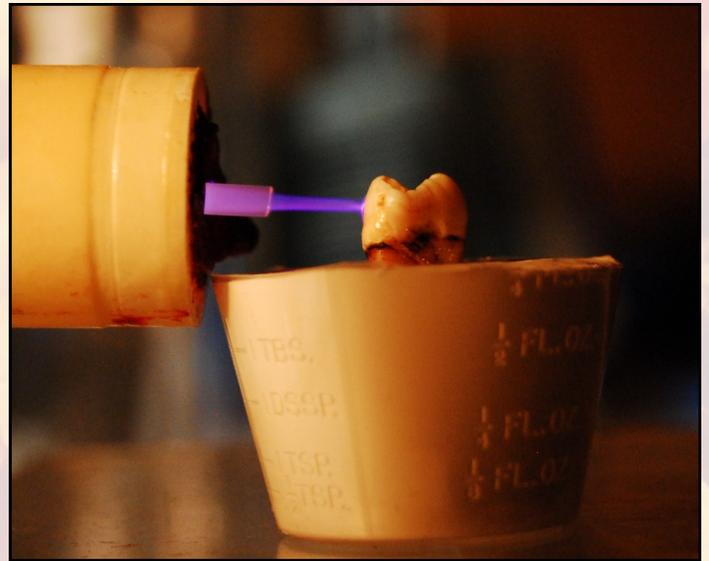
There are faculty in each school conducting notable research such as the role that BPAs play in cancer onset; the importance of individualized counseling in smoking cessation adherence or the necessary requirements to for an environmentally safe worksite are a few examples of health related research questions. Determining which instructional method is most effective when promoting safe sexual behaviors for a group of single mothers, or the identification of critical factors associated with an outbreak of West Nile virus, or identification of steps to be taken to control flooding in certain neighborhoods in the Hampton Roads area are just a few of the types of research studies conducted by faculty and students in the College of Health Sciences. More importantly, research for research's sake is meaningless. Central to the purpose for research is discovery to expand a body of knowledge or to improve the life circumstances of others. To continue with last month's newsletter, this month we will highlight the range of research projects our faculty and students are conducting.

The amount of research conducted by faculty in the COHS can be reflected by the overall funding of research grants. During 2011-12, research expenditures totaled over \$ 4.3 million, the majority of which was attributed to the groundbreaking work performed in the Center for Bioelectrics. We commend each of our faculty for all they do to advance the mission of the university and the college which is to improve the health of the residents of Hampton Roads.

Richardean Benjamin, RN, MPH, PhD
Associate Dean

Two Dental Hygiene Professors Contribute to *Plasma Medicine* Book

Low temperature atmospheric pressure plasma (LTAPP) is a technology with the capability to kill pathogenic bacteria while leaving healthy cells intact. A highly interdisciplinary field, plasma medicine combines physics, engineering, biology, and health sciences to create new therapies and strategies for controlling diseases and pathogens. Medical plasma applications are already being utilized for wound healing, sterilization, and surface modification. Current research suggests potential to use LTAPP as a therapy against pathogens associated with oral diseases. Professors Gayle McCombs and Michele Darby recently contributed a chapter in *Plasma Medicine*, edited by Mournir Laroussi, Professor, College of Engineering and Technology at Old Dominion University and MG Kong, G Morfill and W Stolz. McCombs and Darby's chapter focuses on the potential applications of LTAPP (aka cold plasma) in the dental environment. Coined by McCombs and Darby, *PlasmaDent* is the application of plasma technology to oral care. Plasma pharmacology, the actually dosing of LTAPP in treatment protocols, represents a major paradigm shift from physical and chemical treatment strategies, to device-based molecular technology. Such a paradigm shift may be easier, less costly and more efficacious and patient friendly for practitioners to deliver. Based on initial success of medical uses of plasmas, applications for dental and dental hygiene practice are promising. Potential uses of LTAPP in oral healthcare include the inactivation of oral bacteria associated with dental caries and periodontal diseases, tooth whitening, root canal disinfection, sterilization, and dental implant surface modification are reviewed by McCombs and Darby. *Plasma Medicine* is a 2012 publication by Cambridge University Press.



Highlights

- Thirty-nine Physical Therapy May 2012 graduates achieved **100% first time pass rate** on the licensure exam. The National pass rate is 89.63% and the Virginia pass rate is 91%. ODU is the best university for a DPT education!
- Dental Hygiene's Ann M. Bruhn, Michele Darby, Gayles B. McCombs, Carleen M. Lynch was published in the Journal of Dental Hygiene, Vol 86. No 3. Summer 2012. pp 239-247 for *Vital Tooth Whitening Effects On Oral Health-Related Quality Of Life in Older Adults*.
- Mariana Szklo-Coxe, Co-PI, received a NIH grant award on "Policy Resistance Within a Region's Healthcare System: A System Dynamics Approach".

College of Health Sciences Welcomes New Faculty

Community and Environmental Health



Steven M. Becker comes to ODU from the University of Alabama at Birmingham School of Public Health, where he served as Professor of Environmental Health Sciences and Director of the Disaster and Emergency Communication Research Unit. He is an internationally recognized expert on the public health, risk communication, and preparedness and response issues associated with large-scale emergencies and disasters. He will be a Professor, School of Community and Environmental Health, the Associate Director of the Joint EVMS/ODU Masters in Public Health Degree Program well as the Track Director for Environmental Health.

Becker holds a BA in Political Science and Psychology from George Washington University; an MA Political Science from Columbia University and a PhD from the Bryn Mawr College Graduate School of Social Work and Social Research (Occupational and Environmental Health Program).

Professor Becker also completed a post-doctoral fellowship as a Kreitman Scholar at Ben-Gurion University of the Negev focusing on large-scale disaster preparedness, environmental emergencies and terrorism incidents.

Dr. Becker has nearly two decades of experience dealing with environmental contamination incidents, major accidents, mass casualty incidents, terrorism, disasters, and new and emerging health threats. This includes both published scholarly research and extensive fieldwork at disaster sites around the world. His on-the-ground experience includes such cases as a major drinking water contamination incident in Great Britain, the 1999 nuclear criticality accident in Tokaimura, Japan, and the 2001 foot-and-mouth disease outbreak in the United Kingdom. He has performed follow-up work in Ukraine and Belarus on the continuing impacts and implications of the Chernobyl nuclear disaster.

Most recently, he was a member of a three-person Radiological Emergency Assistance Team invited to Japan in response to the March 2011 earthquake-tsunami disaster and the accident at the Fukushima Dai-ichi nuclear plant. In addition to carrying out a broad-ranging site assessment, meeting with key officials, and exchanging information with Japanese disaster professionals, the team provided training to more than 1,100 Japanese hospital and healthcare personnel and first responders.

Dr. Becker served as a principal investigator for the Pre-Event Message Development Project, a groundbreaking study aimed at improving emergency messages for chemical, biological, radiological and nuclear incidents. Funded by the Centers for Disease Control and Prevention, this multiyear, multisite effort identified key concerns and information needs for the general public (including vulnerable populations) and emergency responders. In follow-up studies, Dr. Becker has also examined the concerns, information requirements and training needs of hospital emergency department physicians and nurses and the public health workforce. More recently, Dr. Becker has served as principal investigator for a multiyear Department of Homeland Security funded study of the communication and information challenges associated with radiological threats and incidents.

Dr. Becker's research on disasters, accidents, emergencies, terrorism and related topics has appeared in a wide range of scholarly books and journals including *Disaster Medicine and Public Health Preparedness* (American Medical Association), *Health Physics*, the *British Medical Journal*, the *American Journal of Public Health*, *Military Medicine*, *Safety Science*, *Environmental Health Perspectives*, *Emergency Medicine Practice*, the *Journal of Applied Security Research*, *Pre-hospital & Disaster Medicine*, and *Bioterrorism & Biosecurity*.

In recent years he has served as a subject matter expert for a variety of agencies and organizations, including the Centers for Disease Control and Prevention, the Department of Homeland Security, the Department of Health and Human Services, the New York City Department of Health and Mental Hygiene, the National Academy of Sciences and others. For the past decade, he has also been an invited faculty member for Harvard School of Public Health's highly-rated course on Radiological Emergency Planning: Terrorism, Security, and Communication. In 2005, Dr. Becker was elected by his scientific peers to the Congressionally-chartered National Council on Radiation Protection and Measurements (NCRP), where he serves as a member of the Advisory Panel on Public Policy and the PAC 3 Committee (Nuclear/Radiological Safety and Security). In 2010, he was named a G. William Morgan Lecturer by the Health Physics Society of the United States.



Dr. Maureen Boshier is joining us as a Visiting Associate Professor and will serve as the Master of Public Health Degree Program Track Director in Health Promotion. Her office is located in the Health Sciences Building, Room 3105.

Dr. Maureen Boshier holds a BS in Nursing from Misericordia University, an MS in Adult Psychiatric/Mental Health Nursing and a Master of Business Administration as well as a doctorate in Law and Policy from Northeastern University in Boston. She completed a Wharton Fellows Program in Management for Nurse Executives at the Johnson and Johnson Foundation, University of Pennsylvania. After graduation from Misericordia University, Dr. Boshier served in the United States Army Nurse Corps where she attained

the rank of Captain and established a new job classification for outpatient community psychiatric nursing.

Presently, she serves as a community faculty member in the School of Health Professions at Eastern Virginia Medical School, and most recently she served as Vice President for Operations at Eastern Virginia Medical School in Norfolk, Virginia and as program advisor to the EVMS School of Health Professions.

A life-long champion of community health as an effective approach to solving health issues, Dr. Boshier recently completed service as a member and as Chair of the Access Partnership Board of Directors, an organization that seeks to improve health care services to the underserved members of the Hampton Roads community, and as a member of the national Commission for Case Manager Certification, an organization that credentials case managers who often work as the coordinators of community care.

Physical Therapy

Lisa R. Koperna, PT, DPT, SCS, ATC is a Clinic Director/ Lecturer in the College of Health Sciences at Old Dominion University. Her passion for, and commitment to education, physical therapy, and athletic training are demonstrated by the following earned degrees: Bachelor of Science in Physical Education and Master of Science in Education with emphasis in athletic training from Old Dominion University, Master of Physical Therapy and Doctor of Physical Therapy from Shenandoah University. She is currently pursuing a PhD in Public Health at Walden University. Upon completion of her PhD, she plans to continue clinical research pertaining to prevention and treatment of sports-related and combat-related concussions.



Dr. Koperna has over 15 years of experience providing patient care and managing rehabilitation services in outpatient and rehabilitation hospital settings. She has served, and continues to serve, as a volunteer at local, regional, national and international sporting events, most notably, the 1996 Olympic Games and the 1995 Pan American Games. She has integrated her experiences as an educator, and clinician to create a stimulating and practical learning environment for graduate athletic training and physical therapy students in academic and clinical settings. In her new position she will collaborate with ODU and the community to launch a physical therapy clinic that will meet their needs, and provide opportunities for clinical education and research.

Dental Hygiene



Denise Claiborne comes to us from Thomas Nelson Community College where she taught Pharmacology and Clinical Dental Hygiene to junior and senior students. In addition to working in academia, she has experience in the private practice setting providing care to diverse and dentally/ medically underserved people. Currently she is working on two journal publications: effects of low temperature atmospheric pressure plasma on tooth whitening, and common medications that cause xerostomia; and a book chapter on the dental hygiene care environment. She is gearing up to conduct a Hu-Friedy Dental Manufacturing Company funded project to test the efficiency and value of a new proprietary delivery system for a commonly used therapy in dental hygiene practice. Claiborne earned her Bachelor and Master of Science Degrees in Dental Hygiene, and a Bachelor of Science in Psychology, from Old Dominion University.

Advising

Keith Krepcho is from Miami, FL and received a Bachelor's Degree from Southeastern University and a Master's in Divinity from Southwestern Seminary in Fort Worth. He previously served as Academic Advisor for the School of Communication and the Arts at Regent University. He is excited to be a part of the ODU community and about his future with the College of Health Sciences.



Center for Global Health



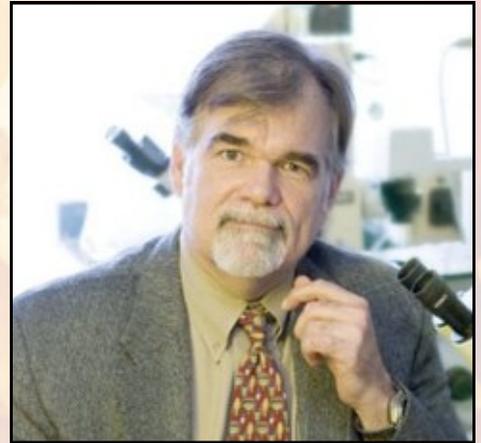
Dr. Barbara Greenberg is the new Director of the new Center for Global Health at Old Dominion University and Professor of Community and Environmental Health, College of Health Sciences effective September 25, 2012. Dr. Greenberg has her MSC in International Health and her PhD in Immunology and Infectious Diseases/Epidemiology from John Hopkins University. She also has completed Graduate Epidemiology Certificate Programs at the University of Michigan in Survival Analysis, at John Hopkins in Longitudinal Analysis and Genetic Epidemiology, and at the European Educational Program in Epi, Italy in Genetic Epidemiology Design and Analysis. She is fluent in English and Spanish, having worked in several countries, including over one year in Peru. She has held a variety of research, faculty and administrative positions throughout her career at John Hopkins University, New York City Department of Health, Albert Einstein College of Medicine/Montefiore Medical Center, New York Academy of Medicine, and Nova Southeastern University.

Dr. Greenberg is coming to us from the University of Medicine and Dentistry of New Jersey (UMDNJ) where she is currently the Director of Institutional Research, the Associate Dean of Research for the Dental School and co-investigator on a \$2.2 million NIH/NIDCR three year grant to investigate HIV Testing in Dental Care Settings. She has served as peer reviewer for several journals and currently serves on the Editorial Board for the Journal of the American Dental Association. Dr. Greenberg has 37 peer-reviewed research publications in top tier journals, one book chapter and numerous international presentations as an expert in her field. Her research has been funded by numerous grants with more than \$3 million as the principal investigator to address a variety of important public and global health issues involving infectious disease (HIV/AIDS), women's health, screenings, oral health, and disparities.

Medical Laboratory and Radiation Sciences

Dr. Roy Ogle has accepted the position of Chairman, School of Medical Laboratory and Radiation Sciences.

Dr. Ogle received his BA and Ph.D. from the University of Virginia followed by postdoctoral fellowships in the Laboratory of Developmental Biology at NIH. He began his academic career as Assistant Professor of Cell Biology and Anatomy at MUSC in Charleston, SC, later becoming professor at the University of Virginia in the Departments of Neurosurgery, Cell Biology, Medicine, Biomedical Engineering and Plastic Surgery. At UVa he was also Director of Craniofacial Research and Chief of the Division of Regenerative Medicine. In 2009 he came to LifeNet Health in Virginia Beach, serving as Director of Regenerative Medicine and Cellular Therapy and Chief Scientific Officer.



He is the recipient of over 42 research grants, holds several patents (2 issued, 7 pending), and has authored 129 peer-reviewed publications and the textbook, *Craniofacial Surgery: Science and Surgical Technique*. He has served on many federal and state advisory committees and review panels and testified at the US Senate Hearings on the NIH budget and embryonic stem cell research as well as the Virginia General Assembly. He is a member of the Scientific Advisory Board for Stemgent and the Board of Directors of the Virginia Biotechnology Association. Ogle also has appeared frequently in the popular media to explain stem cell biology to general audiences. Additional areas of interest include bioethics and public policy related to stem cell research and establishment of public stem cell banking systems in Virginia and abroad.

His current research focuses on regenerative medicine--both basic and translational research in stem cell biology and tissue engineering. Recent studies include developing methods to create induced pluripotent stem cells (iPSCs) with non-integrating technologies for use as disease models, vehicles for drug discovery and future agents for cell replacement therapies. His group has also fabricated nanofibrous protein meshes, which serve as effective substitutes for cellular feeder layers for propagation of stem cells in vitro. He has also developed methods for extracting and using native extracellular matrix to propagate and deliver stem cells and otherwise mediate tissue regeneration in the cardiovascular and nervous systems.

Dr. Ogle's wife, Rebecca, is a scientist at LifeNet Health and their daughters are Dr. Molly Ogle, in the Biomedical Engineering Department at Georgia Tech and Katie Ogle, a writer in Seattle. I welcome him to our team and look forward to strategic developments in the School.

Welcome Back Picnic

The College of Health Sciences held its annual Welcome Back Picnic on September 11, 2012 for the students, faculty and staff. The event was filled with fun, food, music, and prizes! A record number of students, faculty and staff attended due to the beautiful weather!



Dr. Karen Kott



Dr. Gail Grisetti, front



Nursing Students

Upcoming of Events

September

- 21 **Fall Faculty Retreat**
10:00 am–12:30 pm, Location: Webb Ctr, Hampton/Newport News Room
- 21 **Physical Therapy White Coat Ceremony**
4:00 pm, Location: TBA

October

- 6–9 **Fall Student Break**
- 9 **FERPA Training for COHS Staff and Interested Faculty by Mary Swartz**
10:30am–11:30 am, 11:30 am–12:15 pm (lunch)
Location: Health Sciences Bldg Room 2000
- 10 **University Graduate Administrators Workshop**
9:00 am–4:00 pm, Location: Webb Ctr, Chesapeake/Portsmouth Room
- 10 **Program Directors Luncheon**
12:00 pm–1:00 pm, Location: Health Sciences Bldg Room 2110
- 10 & 13 **CE Course–Dental Radiation Safety Certification**
- 11 **COHS Advisory Board Meeting**
8:30 am–10:30 am, Location: Webb Ctr, BOV Room (members only)
- 12–13 **Physical Therapy Alumni Reunion**
Location: Virginia Physical Therapy Association (VPTA) Conference Ctr
Downtown Norfolk (TBD)
- 16 **Presidents Broderick & Provost Simpson, Fall Visit with COHS**
9:00 am–10:00 am, Location: Health Sciences Bldg, Room 2000
- 16 **Dean's Student Advisory Committee Luncheon**
12:30–1:30 pm, Location: Health Sciences Bldg 2114



Cristina Jerone (left) and Ashley Fletcher (right) are Medical Laboratory and Radiation Sciences Student Workers