President’s Message  
by Luisa Ann DiPietro, DDS, PhD

Dear WHS Members,

Several pieces of data suggest that research in the field of wound healing is at a logarithmic phase of growth. A PubMed search of the topic “wound healing” reveals 5365 publications in 2010, a total that is considerably higher than the 2005 total of 3892. Similarly, WHS has experienced continued growth in the number of abstracts submitted to our annual meeting. This year more than 225 abstracts were submitted, setting a new record and representing an increase of more than 25% over last year.

These numbers tell us some things of importance. First, those of you in the field have been very busy! Second, now is the time for WHS to reach out to the many people who have not yet discovered us. With this obvious growth in the field, WHS is in a terrific position to become the networking hub for scientists and clinicians in wound healing.

During the past year, the Board of Directors and I worked to restate the mission and goals of WHS. Our newly minted statement of purpose, which you will find at right, provides the Society with guidance as we move forward. Finding new ways to promote member interaction, both face-to-face and in electronic format, are currently under development, and we hope to roll out many new member benefits during the upcoming year.

WHS is a growing and inclusive Society, so I hope you will consider becoming more involved. If you would like to participate on one of the WHS committees, please try our new on-line mechanism that links member volunteers to committees. You can learn about the various WHS committees on the committees page at http://www.woundheal.org/index.php?option=com_content&view=article&id=167&Itemid=101. Once you identify a committee that you would like to work on, simply click on the “Get Involved” tab on the left hand side (you will find it under the “Membership” heading). The Get Involved link takes you to a short on-line form where you can provide information to help us place you on a committee.

As I turn over the gavel to the new President, Dr. Harriet Hopf, I would like to thank the members for giving me the privilege of serving as your President. I have truly enjoyed the experience, and leave the office with a pledge to continue to serve WHS in any way that I can. WHS is a special organization, and I look forward to working with Harriet and all of you to make our Society the very best place to be for persons who want to improve wound healing outcomes through science, professional education, and communication.

With warm regards,
Luisa DiPietro, UIC College of Dentistry

Mission

Improve wound healing outcomes through science, professional education, and communication by:

• Leading multi-disciplinary research in wound science and outcomes.
• Linking scientists and clinicians to advance wound healing research.
• Translating discovery into evidence based clinical outcomes.
• Communicating through mentoring, education, publications, and global networking.
From the Editor
By Manuela Martins-Green,
University of California-Riverside

Why You Should Attend the WHS Meeting

I often wonder how I got to be a scientist and about how much I love the life of discovery, innovation, thrill, and ability to let my imagination take me into uncharted waters. I feel I am a very lucky person to have had the opportunity to make the discovery of my profession. One of the big contributors to my success and professional development has been the ability to attend and participate in meetings. There, I meet colleagues who think like I do, and others who don’t and who open my mind to new thoughts. We discuss the scientific issues of the day, attend presentations from experts in a particular aspect of the field, and have fun. For such reasons, you should not miss the WHS annual meeting.

This year, the AWC/WHS meeting is full of excellent talks by senior and junior scientists, poster sessions, social events, award presentations, and an excellent cadre of exhibitors. We have included here some program highlights, and a link to the full program on the WHS website. We are part of a big meeting of allied colleagues whose work involves wound healing, plus a full schedule of WHS events. At the annual meeting you can also establish new collaborations, further and/or change your career path, and interact with scientists whom you might have heard of but not had a chance to meet. Our Meet the Mentors program has been very exciting for young researchers and legends in the field alike.

So, come with an open mind, be prepared to listen, and go out of your way to network. We will meet at a lovely convention hotel with excellent amenities for your down time during the meeting. See you soon in Dallas!

Please send any comments or suggestions about the newsletter to me directly at manuela.martins@ucr.edu

International Calendar

August 21-25, 2011
Cell Stress Society International (CSSI), Fifth International Congress on Stress Responses in Biology and Medicine, Quebec City, Canada,
Information: www.cssicongress.org

October 5-7, 2011
European Tissue Repair Society Congress
Felix Meritis Complex
Amsterdam, The Netherlands
Information: www.etrs2011.org

December 5-6, 2011
Japanese Society for Wound Healing Congress
WINC AICHI, Nagoya, Aichi, Japan
Information: jswh41yufujita-hu.ac.jp

March 18-22, 2012
Australian Wound Management Association Conference
Sydney Convention & Exhibit Center
Sydney, Australia
Information: www.awma2012.com

September 2-6, 2012
World Union of Wound Healing Societies
Yokohama, Japan
Bob Diegelmann

By Paul Ehrlich

I know of no other society that has a Kenny Rogers look-alike as a member, but we do. Bob Diegelmann, our Vice President, is a Kenny Rogers without a guitar. Though he has not sung for us, he has done about everything else. He was a founding member of WHS, became our first Secretary, and survived five terms on its Board of Directors. Few, if any, of the founders contributed more time and put forward more effort towards the group's establishment and success than Bob. As Past President, I know how much his quietude, patience, and easy diplomacy eased our birth. He has made numerous other contributions to the society.

Bob was indispensable during our many organizational meetings. He attended all of them and was our initial “scribe.” If clarification of our many agreements and disagreements (and there were many of both) was needed, it was Bob Diegelmann who had the memory. He kept all those notes, and, probably because no one else could do the job, he has become our archivist. By unanimous vote he was given the official title of Secretary. He served at that post before the Society had any professional management or services, and did it all—unpaid, I might add! During the early years, there were more than 700 members and Bob corresponded with and kept track of all of them!

The nuts and bolts of any society are its bylaws and incorporation papers. Ours were written and filed by a well-established law firm in Washington, DC. The founder of that law firm, David Davenport, a personal friend of Bob's from their college days, did it (within the state of Virginia) as a personal favor to Bob—pro bono.

For 12 years, Bob served as co-editor of “Scars and Stripes,” the WHS newsletter. Another friend of Bob's who was in the printing business did the printing, at cost, also as a personal favor to Bob! Need I observe that he inspires loyalty? He was a member of the WHS Membership Committee from 1989 to 2002 and its chairman for three years in the late 1990s. In 1994 Bob was awarded the WHS Distinguished Service Award.

Bob received his BS degree from Mount Saint Mary's College in Emmitsburg, MD, and his Ph.D. degree from Georgetown University in Washington, DC. He did post-doctoral training at the NIH, National Cancer Institute, in the Laboratory of Physiology with Dr. Beverly Peterkofsky, with whom he published a paper on measuring collagen synthesis that is in the top 20 most cited Journal of Biochemistry papers. He is currently Professor of Biochemistry & Molecular Biology, Anatomy and Emergency Medicine at Virginia Commonwealth University at Richmond, Virginia. One might like to attribute the VCU basketball team’s miraculous run to the Final Four this year to Bob’s charmed presence on campus, but that might be beyond even his powers.

Bob is the director of the Laboratory of Tissue Repair at Medical College of Virginia, which was established in 1972. In 2005, he was recognized with the school of medicine’s highest award for teaching excellence. Since 1993, Bob somehow has found the time to volunteer for the Forest View Volunteer Rescue Squad – EMT unit and is the Emergency Vehicle Operations Course Instructor and Life Member of the squad. He is an honorary life member of the Knights of Columbus.

He is a passionate Washington Redskins fan, and married to Penny, a fanatical Dallas Cowboys fan. Their marriage somehow managed this fundamental
conflict for 34 years. They have raised five children, and have two grandchildren and a son and daughter who are pursuing careers in the medical field.

We have been friends since 1972. We first met at a Collagen Gordon Conference in New Hampshire, at which time we were pursuing our post-doctoral training at different institutions in the field of collagen biochemistry. Over the years we have remained good friends and have collaborated on a number of projects. It has been a most pleasant experience being a friend of Bob and working with him for all these years. If you know that old adage “Nice guys finish last,” it is Bob who defies that adage, continuing his winning ways in life. I look forward to the moment in the near future, when he receives the recognition that he deserves, becoming President of the Wound Healing Society.

Editorial Comments by T.K. Hunt.
2011 WHS Program Highlights

By Marjana Tomic-Canic, PhD and George A. Perdrizet, MD, PhD, FACS
Co-Chairs, WHS 2011 Program Committee.

The Program Committee was very active this winter in finalizing the Program for the WHS 2011 Meeting, which takes place on April 14-17 at the Gaylord Palms in Dallas, TX. The program is finalized and is very exciting. We are honored to welcome Angela M. Christiano as our Keynote Speaker, to discuss approaches to genetic therapies for skin and hair diseases and their applications to wound healing.

General Plenary Sessions will include:

- Hot Topics in Regenerative Medicine, including successful translational applications from Eyes, Bones, and Heart.
- Ian McNiece, Rocky S. Tuan, and Schefer C.G. Tseng will discuss pioneering advances in the areas of regenerative medicine.
- Biology of Chronic Wounds
- Aging, Cellular Senescence, and Wound Healing
- Biofilms and Mechanisms of Host Response
- Progenitors in Wound Healing: Repair vs. Regeneration
- WHS/Cell Stress Society International joint session on the topic of Cellular Response to Stress and Wound Healing.

The list of speakers includes Aristides Veves, Sabine Eming, Matthew Hardman, Judith Campisi, Richard Galo, Julie Segre, Wei Li, Pampee Young, Georg Wondrak and many others. The International Session, led by Laura Parnell and Andrew Baird, will welcome top scientists from other sister societies discussing Pain and Neural Impact on Wound Healing.

WHS is proud of the accomplishments of young researchers and will feature their work at 2011 Meeting in a special Young Investigators Symposium. Also, Traci Wilgus and Tai-Lan Tuan (WHS members) teamed up with AAWC (Tina Tomas) and organized an impressive joint Meet the Mentors session that will provide focused group interactions with leaders discussing various topics related to grantsmanship, job application, academic mentorship, tenure process, career development, and other issues. See page 7 below for details.

Pre-conference Sessions

Pre-clinical Models of Wound Healing is envisioned to discuss current use of animal and human models to study wound healing, with emphasis to the specific use: basic science and/or clinical & translational. It is designed to stimulate vigorous discussion of the preclinical model problem in the hopes of developing a WHS-initiated consensus regarding the advantages and drawbacks of different favored approaches. Although the attendance is free, participants must fill out an application because of its interactive format. We are happy to report that this session generated a lot of interest and that we have a waiting list.

From Discovery to Therapy will continue this translational theme and provide basic information from academic, regulatory (FDA), and industry prospective of the process of technology transfer.

Continued next page

WHS HOSTS CSSI AT THE 2011 ANNUAL MEETING

This year, the WHS will showcase a new event: hosting the Cell Stress Society International (CSSI) in a plenary session dedicated to the role played by the cellular response to stress in wound healing. This is a great opportunity for wound healing scientists to view the primary research being done by leaders within the CSSI and meet the scientists. Anthony DiMaio, PhD, President of the CSSI will highlight the potential synergy between these two societies. Lawrence Hightower, PhD, past president and founding member of the CSSI, will present an overview of the original studies that ultimately defined the field of cell stress responses. Three active scientists will present new findings, including Dr. Georg Wondrak, Univ. Arizona- nrf-2/small molecule pharmacology; Dr. Min Zhao, UC-San Diego, stress proteins and electric stimulation; and Dr. Wei Li, USC, HSP90 and cell migration. We expect this session to expose attendees to important new avenues of research and potential collaborations within the CSSI.
Kudos

The Program Committee also completed the abstract review and planning of concurrent mini-symposia sessions, Young Investigators competition, Poster Talks, and Industry sponsored (formerly Blue Ribbon) competition. We could not have achieved this without help from our Committee members and working groups. We are very grateful to the Abstract Review Subcommittee, who graciously donated time over the Holiday break to review and score the abstracts. The Abstract Task Force worked extremely hard under the tight deadline to sort the top scored abstract in organized sessions. Dr. Pat Hebda (Editor in Chief for Wound Repair and Regeneration Journal) helped us with submission of abstracts and their publication to WRR. And a very special thank you to Mindy Hoo (Crow-Segal), who helped with every step of the way.

Abstract Review and Scoring

We would like to take the opportunity to share with you the insights into the abstract review/scoring process. Although we both participated in the review process in previous years, this year we had the opportunity to experience it from the “front row,” as Program Committee Co-chairs, and were impressed by the extent of careful design to focus abstract selection solely on scientific merit. It is a form of a “double-blinded study” and we wish that other scientific review committees (manuscript reviews and grant panels) use a similar “review protocol.”

The WHS abstract review process is set up by a third-party (computer whiz and non-scientific management personnel), and reviewers are blinded to the authors/institutions. The abstracts are judged on the scientific merit. Each abstract is reviewed/scored by minimum of three reviewers. Once the reviewers enter their scores into a secured site, their duty is complete; i.e., they don’t get to know the scores of others. The scores are gathered and sorted by a computer program. Once the abstracts are sorted by the score average, top 15 and bottom 15 are sent for second blinded review to another set of reviewers, followed by finalized score grid. Program Chairs and two additional members of the task force then proceed to sort the top 120 abstracts into sessions. Although this small group sees the average scores, they are blinded to who the reviewers were and what were the individual scores. After abstracts are organized into sessions (based on scores and topic) the names or the authors are revealed and acceptance notice is sent out.

We received more than 230 abstracts, a record number, and 84 of these will have the opportunity to speak in concurrent sessions. In addition, 40 abstract presenters will have opportunity to discuss their work in PosterTalk Sessions. Last year we introduced Poster Talks, interactive scheduled sessions that are moderated in small groups that are back by popular demand. More than 100 presenters will discuss their research findings in interactive and lively General Poster Session.

Program and Registration Information

The preview of the complete program can be seen at: http://woundsresearch.com/images/SAWCSPRING2011 PreAttenBroch_lr.pdf. This site is updated regularly to reflect latest changes to the overall program.

If you have not done so, please remember to register for the meeting at: http://www.woundheal.org/login by using your username and password.

To see the full WHS meeting program, go to www.woundheal.org/assets/documents/2011whs_ann_meet_%20prelim_prog.pdf

We look forward to seeing you soon in Dallas!
The Wound Healing Society (WHS) and Association for the Advancement of Wound Care (AAWC) Present

MEET THE MENTORS*

at SAWC/WHS Spring 2011

Please join us on Friday, April 15, 2011 from 12:15 to 2:00 PM for a speaker presentation followed by meeting the mentors. Mentors are members of WHS and AAWC who will answer your questions on the following topics.

Room: Ft. Worth 5-7

12:15 to 12:45 PM  Special Topic
by Fred Grinnell, Ph.D., Professor of Cell Biology
University of Texas Southwestern Medical Center
Why is it so hard to discover anything new and, once you succeed, to convince others that your discoveries are correct?

12:45 to 2:00 PM  Nine Concurrent Discussion Groups

Independent Research
Junior faculty and aspiring independent researchers will discuss how to overcome unique obstacles faced by young investigators. Selecting research mentors, establishing independence and starting a new lab will be discussed.
Mentors: Praveen Arany; Traci Wilgus; Jeff Davidson

Publishing & Authorship
Guidelines for writing/submitting manuscripts for publication and authorship issues will be addressed.
Mentors: Pat Hebda; Alan Wells

Career Paths
MD or PhD? Industry or academics? Tenure-track, research-track or clinical-track? Mentors representing several career paths will answer questions to help you decide what career path is best for you and how to get there.
Mentors: Stephanie Bernatchez; Paul Liu; Lillian Nanney; Tai-Lan Tuan

Research Funding
Established investigators and funding agency representatives will be available to discuss research funding sources, grantsmanship, and how to navigate the NIH grant review process.
Mentors: Scott Somers (NIGMS, NIH); Chandan Sen; Luisa DiPietro

Research Ethics
Ethical considerations for the use of stem cells, animals and human subjects for research will be discussed.
Mentors: Annette Wysocki; Fred Grinnell; George Perdrizet

Translational Research & Product Commercialization
The requirements for taking a scientific idea from the bench to the bedside and marketing a new product will be explored in this session.
Mentors: Andrew Baird; Laura Parnell; Robert Diegelmann

Getting Started with Clinical Research
This renowned duo offers insights into how to get started with clinical research. What to do and not to do? Those are the questions!
Mentors: Barbara Bates-Jensen; Thomas Serena

Problematic Patients & Advanced Treatments
Meet with us to discuss problematic patients and the utilization of advanced treatments. How do you convince your patient that there is a “better” way?
Mentors: Terry Treadwell; Dot Weir; Harriett Loehne; David Keast; Eliot Mostow

Health Care Finances
AAWC Members with strong backgrounds in healthcare finance cannot wait to help you with your toughest healthcare finance questions.
Mentors: Kathy Schaum; Robert Warriner III; Donna Cartwright

*Participants will be eligible to enter a drawing to win a free copy of “Everyday Practice of Science” by Dr. Fred Grinnell, a top six finalist for the 2010 Royal Society Prize for Science Books.
Reflections Back on Our First Meeting

The way it used to be…

Marty Robson organized and hosted our 1st Annual Scientific Meeting in 1991, and Paul Ehrlich, as the President-Elect, was the Scientific Program Chairman. We had 254 registrants. The first presentation was given by Anita Roberts on “TGFbeta: Central Role in Healing & Inflammation.” Then we had three sessions on Growth Factors, where the top 12 abstracts on that topic were presented. The second session was on Methodologies and the four best abstracts on that topic were given. On the first day, we also had a session on “Neutrophils and their Migration in Acute Inflammation,” presented by John Lackie from the Yamanouchi Research Institute in the UK. The first day ended with a Poster session.

On the second day, attendees could choose from two, repeated breakout sessions on Animal Models; Inflammation; End Point of Clinical Studies; Growth Factors, or Wound Healing: The Clinical Problem. After lunch together, Tom Hunt gave the President’s Address and then we all attended presentations on The Issue of Animal Rights; The Role of the FDA in Bringing a Drug or Device to Market; and How to Actually Bring a Drug or Device to Market. The second day ended with our Business Meeting, followed by a wonderful cocktail and buffet reception.

The third and final day began with a presentation on “Transductive Coupling of Physical Forces in Wound Repair and Remodeling,” by Raphael Lee from the University of Chicago. Next there was another abstract session on “Promoting Wound Healing,” followed by a presentation by David Birk from the Robert Wood Johnson Medical School on “Segmental Deposition & Assembly of the Collagenous Matrix: Development, Growth and Wound Healing.” Professor Charles Lapiere then gave a superb lecture on Collagen, followed by a panel discussion. After lunch, we heard a presentation on “Analyzing Cell Motility Behavior: Chemotaxis and Guidance,” by Alastir Brown from King’s College, London. The top four abstracts on “In Vitro Models of Repair” were presented and the meeting concluded with Tom Krummel’s presentation on “Fetal Tissue Repair: What’s Newt?” and four top abstracts on Fetal Wound Repair were presented. A total of 34 abstracts were printed in the program booklet, with the top 16 presented in platform sessions and the remaining 18 given as posters.

Our first meeting was magnificent, full of energy and excitement. By the end of the four days, we all felt like we knew everyone there. We dined together, partied together, and shared the enthusiasm of our new society with a rich interaction and exchange of ideas and new collaborations. Ahhhh, the Good Old Days!!!!
Obtaining Human Tissues for Wound Healing Studies
Sashwati Roy, Gayle Gordillo, and Chandan K. Sen,
Comprehensive Wound Center, Departments of Surgery and Plastic Surgery, The Ohio State University, Columbus, Ohio

Wound healing studies designed to address mechanisms or causality, specifically at a molecular level, lag far behind other medical conditions because there are no good animal models of chronic wounds. It is indeed difficult to control for the multitude of conditions that impact clinical wound healing outcomes. Obtaining tissue samples from human wounds is a powerful approach to gain insight into what is actually happening within a wound. In this article, in addition to proving information regarding the types of wound tissue that can be obtained from human chronic wounds, we also describe critical factors that need to be considered prior to planning a study involving human wound samples.

INFRASTRUCTURE
Availability of appropriate infrastructure is critical to the success of wound research studies involving human subjects.

A. Wound Centers. Lack of access to comprehensive human wound (etiology, location outcome) data sets has been a critical barrier to performing wound healing research. Wound Centers may serve as a valuable resource for getting access to well characterized wound samples that are linked to detailed wound and patient data sets.

B. Multi-Center Studies. Multi-center collaboration can result in higher rates of patient enrollment than single-center research, thereby generating larger studies or completion of studies in shorter duration. Lack of standardized wound care protocols among participating centers may lead to variation in data and sample collection, thus confounding results. Adoption of standardized protocols for routine wound care in participating centers is critical. Administration of multiple centers by a common management team forces these multiple centers to adopting standardized diagnosis and care protocols.

C. Personnel Training And Institutional Review Board (IRB). Wound care centers need to be supported with appropriate programs aimed at training of research personnel in a clinical care setting. Topics to be addressed include the informed consent process, confidentiality, identifying and managing risks, protocol development, protocol adherence and ethical conduct of research as approved by the IRB. Standardized DVD-based training is desirable.

D. Clinical-Basic Science Researcher Partnership. Obtaining tissue from human subjects with chronic wounds requires participation of not only physicians, but all clinical staff. It is therefore, important to create and maintain a culture at the wound clinics/centers that supports research by a) keeping an ongoing dialogue between research staff and all clinical staff on research related logistics as well as findings; b) minimizing disruption of clinical work flow because of research activity; c) incentivizing (e.g., academic credits or monetary reimbursement) physicians to participate in research; and d) developing a scorecard to monitor the impact of research on overall clinic business.

E. Wound Data Collection Tools. The high degree of variability among patients with wounds means that a large number of subjects must be screened and stratified based on their medical history to identify similar cohorts of patients suitable for data analysis. An integrated data management platform for multi-site clinical and translational research in the wound healing domain is an essential tool. Web-based software development linking patient medical records with the banked tissue and corresponding research data are of immense value.

Continued next page
**SAMPLE TYPES AND COLLECTION**

**A. Wound Biopsy.**
Preparation of Wounds For Sampling. There is a lack of consensus regarding the correct way to prepare and sample a wound. We collect biopsies following routine debreadment of the wounds to avoid collection of dead necrotic tissue. Prior to biopsy collection, the wound bed is prepared with local antiseptics. As per patient request, local anesthesia is administered. This is not standard because some patients will be insensate in the area of the wound (e.g., patients with diabetes or paraplegia/quadriplegia). It will be important to have some tissue samples without local anesthetic to determine whether the use of anesthetic agents impacts the molecular studies planned with the biopsy.

**Collection Procedure.** Wound tissue specimen from a specified location (e.g., 1 cm from wound edge) of the wound is collected with a 3 mm punch biopsy tool.

**Sample Storage And Transport.** Samples are rinsed immediately with ice-cold normal saline, patted dry on a kim-wipe, and then placed in an appropriate collection vial (e.g., OCT for cryosectioning) and immediately stored (e.g., snap frozen in liquid nitrogen for gene expression or protein studies). The samples can be transported from clinic to laboratory in properly secured biohazard-safe containers under appropriate temperature conditions (e.g. in portable liquid nitrogen tanks). The U. S. Department of Transportation (DOT) and the International Air Transport Association (IATA) regulate shipments of any biological materials. Additional regulations may apply while shipping of wound samples in dry ice.

**B. Wound Debridement Tissue.** Wound debridement tissues have been used routinely as a source of viable wound cells. One such example is a study where the burn eschar was excised during surgery between 5 and 35 days post-burn (average 16 days). The study showed that eschar tissue contained viable cells including fibroblasts, myofibroblasts, granulocytes, keratinocytes and macrophages suggesting that such tissue may be a potential source of viable wound derived cells.

**C. Wound Inflammatory Cells.** Blood monocytes differentiated ex vivo using standard laboratory procedures do form macrophages but do not resemble wound macrophages because of the lack of complex wound microenvironment cues ex vivo (1). Wound macrophages can thus only be studied functionally if they can be isolated intact from the wound milieu. The use of negative pressure wound therapy (NPWT) represents an effective approach to accelerate healing of various wounds. We have, for the first time, optimized an approach to isolate live functional chronic wound macrophages and other inflammatory cells from the sponge dressings (sponges) used for NPWT. Wound macrophages obtained using such approach showed major differences in the global gene expression pattern compared to pair-matched blood monocyte derived macrophages from the same patient (unpublished data from authors’ laboratory).

**D. Wound Fluid.** Wound fluids are valuable as they reflect the wound micro-environment. The wound fluids contain locally derived factors that influence the healing process. Numerous approaches for the collection of wound fluid have been described. Drainage fluids obtained from surgical procedures via Jackson-Pratt or Portavac drains represents the acute wound environment. The limitation of this approach is that the fluid can be obtained only a few days post-operation because of quick removal of drains to avoid unnecessary risk of infection. Other approaches include collection of blister fluid and direct aspiration of fluids from under occlusive dressings. Wound fluids have also been extracted from materials placed onto the wounds (e.g., hydrophilic dextranomer beads), extracted directly from dressing materials and fluids cellullosic filters placed within a porous mesh. Microdialysis has been a widely used for collection of fluid from interstitial space. Advantages of this sampling technique are that it is inexpensive and minimally invasive.
Finally, collection of fluids from canisters used in NPWT has been used in a number of studies. The major limitation of this approach is that the patient population is limited to those undergoing NPWT.

**NOVEL TECHNIQUES FOR MOLECULAR ANALYSIS OF WOUND SAMPLES**

Biopsies collected from human cutaneous wounds presented in the clinic are highly heterogeneous in cellular composition. Small sample quantity poses additional challenges in detailed molecular analysis. The nature of the tissue may vary from one collection to another complicating comparison of results derived from tissue homogenates. Thus, the utility of such tissue material is primarily limited to histological studies. Novel and advanced techniques are required to perform molecular analysis of such tissue samples. We routinely employ laser capture microdissection (LCM) technique to study biology of tissue obtained from human chronic wounds. In 1997, we presented the first evidence demonstrating that selective microdissection of blood vessels, high-density microarray analysis, quantitative PCR-based validation of microarray data as well as immunohistochemistry can all be performed using no more than one 3 mm punch biopsy from the chronic wound tissue. Comparison of results from blood vessels at the edge of chronic wound tissue with those of vessels from intact human skin demonstrated a revealing contrast between the transcriptome of the two vessels (Proc Natl Acad Sci USA 104:14472-7, 2007). This powerful new technology is applicable to a broad range of clinical research and represents a catalyst of sophisticated translational research.

*Work in the authors’ laboratories is funded by NIGMS, NIDDK and NINDS.*

**Literature Cited:**

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**Call for Speaker Proposals**

WHS members are invited to submit proposals for the opportunity to represent the Wound Healing Society by presenting their research at the World Union of Wound Healing Societies (see page 2) and the Japanese Society for Wound Healing meetings in 2012 (see page 2). Four potential speakers will be chosen and their names forwarded to the meeting organizers as the WHS representatives. Substantial reimbursement of expenses will be provided by the meeting organizers.

**MEETINGS**

The meetings will be the World Union of Wound Healing Societies (September 2-6, 2012; Yokohama, Japan) and the Japanese Society for Wound Healing (December 2-4, 2012; Sapporo, Japan).

**CRITERIA**

Submissions will be reviewed and ranked by a WHS panel based on submitted proposal outlines (200 words or less) for science, originality and communication. Highest ranked submissions will be selected. A brief biosketch (less than 100 words) is required and will be provided to the meeting organizers.

**TOPIC**

The WUWHS topic is the modulation of tissue regeneration. The JSWH topic is tissue regeneration. Submissions can be for one or both meetings.

**DEADLINE**

A year after passage of federal legislation to reform U.S. health care, the historic law remains controversial, and ongoing legal challenges are certain to keep the issue near the forefront of public consciousness. However, while the legal and political battles ensue, provisions of the Patient Protection and Affordable Care Act of 2010 will continue to be rolled out—individual reforms that, though imperfect, represent steps in the right direction.

Expansion of access to health care and health insurance, while controversial in its implementation, will actually improve the health of vulnerable populations and reduce overall costs. Currently in the U.S., the poor receive extremely inadequate and expensive care. For these individuals, chronic but manageable conditions like diabetes and high blood pressure are left untreated until they become medical emergencies requiring expensive interventions that, sadly, are too often unsuccessful.

This nation would do better to adopt a health care system that looks more like those in other industrialized countries, or even developing countries. Among the world’s 30 industrialized countries, the U.S. ranks in the bottom quartile in life expectancy in spite of spending the most per capita on health care—more than 16 percent of gross domestic product. Many of the Organization for Economic Cooperation and Development (OECD) countries and some developing countries have healthier populations due to a greater focus on prevention, wellness, cost-effective medical interventions, and expanded access to health care. The Patient Protection and Affordable Care Act moves in this direction in several important respects.

A key medical care safety net, Medicaid, will be expanded by the legislation, enabling more poor people to receive preventive health care. For many of these individuals, that care will be delivered principally in Federally Qualified Health Centers (FQHCs), which under the law will receive increased funding based on patient load. FQHC organizations will thus be able to expand clinics and operating hours.

The new law also expands private insurance coverage. Already in effect for job-based insurance is a provision for coverage of dependent children under age 26 who do not have their own coverage. Small firms will receive tax credits to encourage them to offer insurance coverage to employees. And, in 2014, health insurance exchanges will be established to enable individuals and small firms to purchase coverage.

It is universally agreed that the U.S. has far too few primary care physicians—this will be true whether or not the health insurance expansions outlined in the law survive the current legal challenges. The new federal law invests substantial additional funds in the National Health Service Corps, which helps physicians repay their medical school loans in return for them practicing in underserved areas. It also raises physician reimbursement rates for patients covered by Medicaid to Medicare levels, a modest reform that will hopefully encourage more physicians to accept Medicaid patients. These provisions will help the U.S. achieve the worthy goal of increasing the number of recent and future medical school graduates who choose primary care specialties.

One major disappointment of the new law is that it ignored the critical national need to expand the number of training slots for Graduate Medical Education, the residency training that doctors must complete following medical school in order to practice independently. What the law did authorize, however, is the redistribution of unused residency slots to areas where they are most needed. This provision will be of great benefit to regions in the U.S. experiencing severe physician shortages in primary care specialties and general surgery.

While flawed in many respects, the federal health reform law nevertheless represents a major shift of thinking in how we deliver health care in the U.S., as well as much-needed recognition that a greater emphasis upon primary care will ultimately reverse this nation’s dismal health outcomes.
Advances in Wound Care, Volume 2

The Must-Have Desktop Reference:
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The Website Committee has been meeting regularly to evaluate the rollout of the new website's look and to assess what additional features and/or benefits that can be provided to the membership through this medium.

A special thank you goes out to the individuals who have performed “Web Patrol” duties over the past few months: Bob Diegelmann (June), Traci Wilgus (July), Nicki Waters (August), Corrie Gallant-Behm (September), Louisa DiPietro (October) and Manuela Martins-Green (November). During their respective month, each of these individuals regularly reviewed the website, validated that links were still appropriate and active, and made suggestions for improvements.

A recent improvement has been the increased functionality added to the “Committees” area. Committee members can now share, work on, and store documents in this space rather than having to try to keep track of various versions that are being worked on and shared via email. Furthermore, keeping documents in this space will assist WHS in archiving our efforts and maintain our corporate knowledge. In November, the committee began assessing analytics from the website (number of page views and length of time each page is viewed). It is expected that baseline metrics will be established over the next few months. New additions or changes to the website will then be assessed relative to these baselines.

Feedback and suggestions from the membership is encouraged and can be sent to info@woundheal.org or kieswetk@kci1.com.

The Education Committee is looking forward to the Spring SAWC. We are continuing the Basics of Wound Care pre-course. It is our well-received evidence-based four-hour tutorial. The slides for these talks are available for all members within the members only section of the website.

The podcast library continues to grow thanks to the hard work of Lisa Gould and Randy Cook. We hope to soon announce a method to access these for CEU/CME credit. We are also working on a more broad-based initiative to standardize wound care education across disciplines. If anyone has interest in these areas, please contact the Education Committee for more information. My email address is asiddiq1@hfhs.org.

The Membership Committee is happy to report that in 2010, the Wound Healing Society had its highest membership thus far, with a total of 635 members. The committee currently has eight members covering two subcommittees for Recruitment and Retention. As part of plans suggested by these subcommittees, WHS has reached out to other societies. For example, Laura Parnell and I represented WHS at the Veterinary Wound Management Society (VWMS) in January 2010, which led to invited presentations by Lisa Gould at the VWMS meeting in January 2011. WHS will reciprocate in 2012. Other initiatives are currently being discussed with the President and Board of Directors. Stay tuned!
Awards
By Manuela Martins-Green

The Awards Committee met approximately once a month starting in September to plan and execute the work of the committee in preparation for the awards to be given at the WHS meeting in April 2011. We established a timeline for posting the request for nomination and/or submission of applications for the WHS Distinguished Service Award and the Junior Faculty Travel Awards. We also outlined the subsequent schedule for evaluation of these candidates and the decision making for submission of the nominees to the Board of Directors, which is the final decision body on these awards. We established that the selection for the Anita Roberts Award be completed during the Fall Quarter to ensure that the winner will be present at the annual meeting of the Society. We also requested from the Board of Directors permission to select honorable mentions for this specific award, because many times the scores are very close.

In addition to these two awards, the Distinguished Service Award also requires that nominations be submitted. We called for nominations in November, closed the submission the first week of January, and selected the nominee to submit to the Board of Directors by the 3rd week of January. More recently, we have been preparing for the judging of the Young Investigator Awards and for the Industrial Research & Development Poster Awards (previously called Blue Ribbon Poster Awards) to be done at the meeting. For the latter, we have asked two members at large from the Society to participate in the judging at the meeting. The junior member will be Praveen Arany (Harvard School of Engineering and Applied Sciences) and the senior member Paul Higgins (Albany Medical College). We are looking forward to the meeting in Dallas and to the Awards Ceremony.

The Anita Roberts Award, the Young Investigator Awards, the Trainee Travel Awards, the Junior Faculty Travel Awards, and the Industrial Research and Development Poster Awards will be given at the WHS Business meeting on Saturday April 16 at 6 pm, and the Distinguished Service Award will be given at the Opening Ceremony.

SAWC-WHS Meeting

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