PRESIDENT’S MESSAGE
By Bob Diegelmann, PhD., Virginia Commonwealth University

The Wound Healing Society has been very active since our annual meeting in May. Our committees have been tasked with a great deal of work to improve members services, from improving the website to getting more involved legislative affairs to public relations activities that both promote wound healing in the academic world and publicize our activities to the public at large. There’s always room for more volunteers on all our committees.

We have also been working on preliminary arrangements for the WHS Annual Meeting (May 1-5, 2013 in Denver), which is held jointly with the Symposium on Advanced Wound Care. This meeting brings together our members and others interested in wound healing and wound care to share their latest research, learn about ongoing projects and initiatives, network, reconnect with old friends, and make new ones. The Public Relations Committee is working on a Press Day during the meeting to promote our activities to a wider audience. We have also sent out the Call for Abstracts, the deadline for which is December 17, 2012.

Of specific note is the fact that we have designed a stand-alone meeting for a day-and-a-half for our members where we can discuss “hard core” science and cutting-edge research--just like the Good Old Days!! Then we will join in with the SAWC and have our WHS track. In addition, the Wound Healing Society Foundation has initiated an annual Thomas K. Hunt Endowed Lectureship that will begin this year. We look forward to seeing you in Denver to help celebrate our 25th Anniversary!!

Don’t forget to visit http://www.woundheal.org to get all the latest news — and renew your membership if you haven’t already.

NEW MEETING FORMAT

Wed    Thurs    Fri    Sat    Sun

Wound Healing Society Annual Meeting

Symposium on Advanced Wound Care

See You in Denver May 1-5, 2013 for the Silver Anniversary of WHS
From the Editor
By Manuela Martins-Green, University of California-Riverside

Looking Ahead

Holiday Greetings as we approach this festive season. I wish you a Peaceful Holidays and that the New Year brings you and your family good Health, Fortune and Success.

As the year draws to a close, I invite you to look ahead with hope and optimism.

I also want to take this opportunity to reflect on the work of the Public Relations task force appointed by our past president, Harriet Hopf, at the BOD meeting during the annual meeting of the Society last April. Since then the task force has discussed the need for the Society to engage more effectively in improving its visibility. We face many challenges but one we are particularly interested in taking on this year is making our junior scientists a bigger part of the activities of the Society. We are recommending to the BOD that more junior scientists be put on the various committees of the Society, that they Co-chair the abstract session presentations at the meeting, that they are given the opportunity to organize their own session and that the award winners be given registration and membership for the following year. In addition, we are also asking the BOD to consider giving the “Meet the Mentors” session a formal status so that students can sign up at the time of registration. It is critical to be able to know how many people have registered to attend in order to make the appropriate plans and to be able to follow up. We will need to determine a time for this event that is acceptable to SAWC but that occurs during a time that receives visibility. We should obtain email addresses for all junior investigators, encourage them to register to attend the meeting, and let them know about the “Meet the Mentors” session. In addition, a list of participants that can be taken away for future communication should be prepared for each table and ways should be devised to stay in contact. To increase the visibility of the Society to the outside world, we are working with the website committee but would also like to work with the editors-in-chief of WRR and Advances in Wound Care to ensure more effective communication of Press Releases from the journals regarding specific articles that deserve increased visibility. Advertise WHS to other societies and perhaps pertinent websites. We can provide calendar items, press releases, and banner ads to other allied groups (e.g. Society of Investigative Dermatology). And make our newsletter more visible to people outside our society such as to some of the NIH officials and other Societies.

During the 2013-2014 year we would like to establish a Press Day to be held at the Annual Meeting of the Society in conjunction with SAWC. Institute a monthly Webinar Seminar much like a monthly Journal Club as a way of getting young wound healing researchers more engaged. This would be an interactive online sharing of research by young members, which they can also critique. We would also like to work in some capacity in support of the WHS Foundation to define and publicize the mission of WHS. Ultimately, WHS needs to become more involved with Public Policy, Join the Coalition for Life Sciences and work with the Government Relations Committee to start an NIH-funded research initiative for cures of chronic wounds. This initiative would strive to get NIH to put out more RFAs for wound-healing studies.

Suggestions for the newsletter are always welcome. Please send your article, news item, or any ideas to manuela.martins@ucr.edu.
Join the Circle!

The WHS Program Committee is employing emerging technologies and social media to focus the 2013 annual meeting program. One of the symposia planned for the Denver meeting is a roundtable discussion on the preclinical animal models in our discipline. In previous years, we discussed the importance of specific biological models and their ability to define mechanisms of wound healing and the properties of the responses. Although that information is critical, we believe that it is just as important to take a more holistic view of biological modeling. The WHS is a leader in the field and with this new approach we would like to engage our membership in the process.

The Program Committee has set up a “Community Circle” on the WHS website with the express function to encourage a dialogue before the Roundtable. The plan for this Animal Models Circle is to start the dialogue, develop the best questions, and formulate the best directions for the roundtable, so that we maximize the use of the two hour session at the Denver meeting. This is a chance for you, the WHS membership, to get involved at the grassroots level. We want investigators interested in the subject of wound healing models to join us and provide input. We hope that this ongoing discussion via the Animal Models Circle will allow the moderators to focus on the most important questions that are most relevant to the majority of WHS members. We believe this can result in a white paper to guide researchers, funding agencies, and regulatory bodies on what are the appropriate models, why they should be selected and when they should be used.

To participate in this program, please join your peers in the WHS community. First go to the LogIn Page on the website (no better time than now to renew your membership or join the WHS). On the left panel you will find your “My Prolife” tab on your personal membership page. From there, enter the “My Community” and click on the Animal Model Roundtable 2013 Circle. This will trigger a request access to the group discussion area and you will receive an invitation shortly thereafter. For any website questions please contact the Website Committee through Alison Hodges alison@crowsegal.com. For questions related to the WHS Program, please contact the organizers of this session, Aamir Siddiqui and Marjana Tomic Canic at Aamir Siddiqui ASIDDIQ1@hfhs.org and mtcanic@med.miami.edu.

Wound Healing Society annual meeting at SAWC-WHS

May 1-5, 2013

NEW MEETING FORMAT

Back to the Future
25 Years of Wound Healing

For more information go to www.woundheal.org
Key Papers and Presentations by WHS Members

Drug Approval Endpoints for Chronic Cutaneous Ulcer Studies Wound Repair Regeneration In Press: Eaglstein WH, Kirsnser RS, Robson MC: Food and Drug Administration (FDA)

This paper (which might be a key paper for this topic) compares the endpoints of cancer and chronic cutaneous ulcers and argues for a need for other endpoints. This was the basis of a session at the SAWC fall meeting. At that meeting, a person from the FDA alerted us to the fact the guidance documents are being revised and Peggy Dotson has made an effort to summarize the paper (with Pat Hebda’s permission) and the SAWC session (with Tom, Bill and D. Kirsnser’s input), and is working with the FDA to allow wound healers to have input into re-crafting the guidance document.


This paper, part of a wound repair/regeneration theme issue edited by Drs. Longaker and Gurtner, is a primer to the FDA process related to wound healing.

“Wizardry of Tissue Repair and Regeneration: A Tale of Skin Cells When Their Magic Is All but Gone”

Dr. Marjana Tomic-Canic presented on March 7 at 3 p.m. in the NIH Clinical Center’s Masur Auditorium.

The lecture was videocast and featured in NIH Record. Click link to view.


WHS Leaders at European Meeting

The ETRS (European Tissue Repair Society) held their 22nd Annual Meeting in Athens, Greece on October 4-5, 2012. This two-day meeting once again presented the highlights of clinical and fundamental Tissue Repair Research in Europe. A few WHS delegates were there:

President Bob Diegelmann presented a speech on “Integrative Systems Biology Analysis of Critical Illness and Injury”.

Pat Hebda, WHS Past President and current Editor of the WHS Journal, Wound Repair & Regeneration, spoke on “The Dynamic Transcriptome of Regenerative Fetal Airway Mucosa Wound Healing.”

Immediate Past President Harriet Hopf presented “Surgical Site Infection Prevention: What is the Evidence?”

In addition, the 2012 WHS Young Investigator winner, Swati Balaji, took part in the ETRS meeting.

The ETRS & WHS enjoy a close relationship, as evidenced by the continuing support of each other’s endeavors in the field of wound healing.
I first met Laura Parnell at the 1996 Joint Meeting of the Wound Healing Society and the European Tissue Repair Society in Boston, Massachusetts. We both had poster presentations near each other and anyone who knows Laura will understand that standing in her vicinity even for this relatively short amount of time meant first being drawn to her engaging smile, and soon after into a most pleasant conversation! This first encounter was followed by many more over time, as wound healing researchers in the early years and increasingly as dear friends over time.

Laura’s interest in wound healing started during her graduate studies at Texas A&M University in 1990. She then started her career working in clinical research and professional services for Dow Hickam Pharmaceuticals. She joined the Wound Healing Society in 1992 and began serving on the membership committee in 1998. That same year, she went on to start her own consulting company, Precision Consulting. The company specializes in wound healing and burn research, but also takes on projects in oncology, immunology, and cardiology. Laura designs research protocols, provides scientific knowledge and regulatory experience, ensures adherence to current practices, and prepares documents and manuscripts based on the needs of her clients. She has an international clientele and has worked extensively with industry representatives, the FDA, and research investigators. Her work experience also includes developing in vitro, ex vivo, and in vivo models, and monitoring and auditing clinical trials.

In parallel with her busy schedule she has continued to volunteer for the Wound Healing Society. She was appointed chair of the Membership Committee in 2003 and she was elected to the Board of Directors in 2006. After her 3-year term on the board, she was re-elected in 2009, the same year she received the Wound Healing Society Distinguished Service Award for her outstanding contributions in leading the membership committee and as a member of the Board. During her first decade of service for WHS, the membership has nearly doubled and several new initiatives and practices were introduced. To this day, Laura continues to demonstrate unwavering dedication to our professional society, so much that she was appointed as a member-at-large of the Board for another year after her second term ended in 2012! She is also the current chair of the WHS International and Relational Societies taskforce, and she was just recently elected president of the WHS Foundation for 2013.

Laura is a co-inventor on 10 patents and she has published over 50 peer-reviewed articles, presentations, and book chapters, in addition to having been an invited speaker for various organizations. In addition to her membership in the Wound Healing Society, she is a member of the American Burn Association (ABA), the American Society of Microbiology (ASM), the Association of Women in Science (AWIS), the Drug Information Association (DIA), and the Society for Leukocyte Biology (SLB). She was also a member of the American Academy of Wound Management (AAWM) for 10 years. She serves on the Editorial Board of Advances in Wound Care, the newest journal of the Wound Healing Society.

Laura lives in Texas with her husband Chris and their two sons, Michael (age 11) and Daniel (age 9). In her free time, she tends to her ranch, which involves cattle and a plantation of citrus trees and pecan trees. She is a Sunday school teacher and works with Cub Scouts and Boy Scouts on camping and service projects. She also finds a way to somehow stay close to her friends even if the time spent in person is not very frequent because everyone is just so busy... Every time you see her, she makes you feel as she has been thinking of you all along since the last encounter, remembering the little details such as your favorite food, where you went on your last vacation, and what instrument your child plays. I want to personally thank her for her warm and attentive personality, and I strongly recommend that you introduce yourself to this exceptional individual if you have not already done so!
Awards and Recognitions 2010-12

Michael Caldwell, MD, PhD
Marshfield Clinic Research Foundation, WI

Dr. Caldwell was honored on November 14, 2012 as the recipient of the 25th Gwen D. Sebold Research Fellowship.

“For 25 years, the Sebold Award has honored some of the greatest researchers at Marshfield Clinic,” said Dr. Richard Leer, Marshfield Clinic Research Foundation interim director. “That tradition undoubtedly continues with Dr. Caldwell. Since joining the Clinic, he has focused on research that truly benefits patients. He has a passion for moving medicine forward – a trait he shares with past Sebold winners.”

Caldwell, who joined the Clinic in 2000, has served as director of the Marshfield Clinic Research Foundation, spurred the creation of the Personalized Medicine Research Project and has led groundbreaking research to make popular drugs safer. He remains at the forefront of research, studying predictive medicine, a field that aims to predict who will get certain diseases, allowing physicians to intervene early.

The Personalized Medicine Research Project – a genetic database with more than 20,000 people enrolled – gives researchers access to one of the largest repositories of genetic data for use as they search for new ways to tackle diseases and other health issues. It pools the strengths of the Clinic’s robust electronic health record, Epidemiology Research Center and the Center for Human Genetics.

Caldwell for years has led research to improve warfarin safety. Warfarin, widely used to prevent blood clots in patients, is very effective, but one major issue is optimum dosage varies widely for patients. Too little of the drug and a blood clot could form. Too much and a patient could develop internal bleeding.

Along with a team of Clinic researchers, Caldwell discovered a third gene associated with how warfarin affects individuals. The understanding of genetic markers will lead to more effective and safer dosing methods.

In 2006, he founded the International Warfarin Pharmacogenetic Consortium, based out of Marshfield Clinic. The consortium of 21 academic institutions has developed the most accurate algorithms for accurate warfarin dosing, and has the world’s largest sample of patient DNA available for warfarin pharmacogenetic research.

Currently, he is also working with Jim Burmester of the Marshfield Clinic Research Foundation, and David Lewis of University of Wisconsin–Eau Claire, to develop new oral anticoagulants and rodenticides.

Harriet Hopf, MD
Professor of Anesthesiology, University of Utah School of Medicine, UT

Carrie L. Byington, MD, Vice Dean for Academic Affairs and Faculty Development at University of Utah School of Medicine, announced the appointments of two faculty members to the medical school’s leadership team. Dr. Harriet Hopf, Professor of Anesthesiology and Past President of the WHS, will serve as the Associate Dean for Academic Affairs, and Dr. Wendy Hobson-Rohrer, Associate Professor of Pediatrics, will serve as the Assistant Dean for Faculty Development.

Dr. Hopf is nationally recognized for her work in mentoring and faculty development, noted Dr. Byington. She was the first Director of Faculty Mentoring at the University of Utah and in that role created programs to enhance faculty recruitment and retention, and developed mentoring programs and resources for faculty. She is a 2009 graduate of the Executive Leadership in Academic Medicine program and serves as the Utah representative to the AAMC Group on Faculty Affairs. In 2011 she was elected to the Foundation for Anesthesia Education and Research (FAER) Academy of Research Mentors in Anesthesiology.

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Awards and Recognitions

Sidney Miller, MD
Ohio State University Medical Center, OH

Dr. Miller served as president of the National Burn Association for 2010-11.

Jeffrey Niezgoda, MD, FACHM, MAPWCA
The Centers for Comprehensive Wound Care and Hyperbaric Oxygen Therapy, St. Luke’s Medical Center, Aurora Health Care, WI

Dr. Niezgoda received the 2011 Eric P. Kindwall Award of Excellence in Clinical Hyperbaric Medicine awarded by the American College of Hyperbaric Medicine. The award is given to those who have demonstrated a career-long commitment to hyperbaric medicine through excellence in education, application of therapy, teaching, research, forward thinking, and leadership. Recipients are acknowledged for significant contributions to and advancement of the field of hyperbaric medicine in the same spirit as Dr. Kindwall.

Dr. Niezgoda is also President and Founder of WebCME, an intuitive online education platform, and Founder and President Emeritus of the Association of the Bladder Exstrophy Community. He is also Scoutmaster for American Troop 530.

Basil Pruitt, Jr., M.D.
Dept. of Surgery, University of Texas Health Science Center, TX

Dr. Pruitt was given the Master of Critical Care Medicine (MCCM) by the Society of Critical Care Medicine in November 2011. He was also designated “President of Honor” by the First Bolivian Burn Congress in August 2011, and awarded Honorary Life Membership by the Western Trauma Association in February 2011.

Ashley Seifert, MD
Dept. of Biology, University of Florida, FL

Dr. Seifert, a post-doctoral researcher at the University of Florida, gained international press coverage by the BBC, NPR, CBS, the Discovery Channel, and other sources for a study he published in Nature documenting enhanced regenerative ability in two species of African spiny mice. He went to the Mpala Research Center, near Nairobi, Kenya, to research the “incredibly weak skin of these animals,” which tears from their bodies when attacked or handled. They also are capable of regenerating hair follicles in the skin. In addition to healing wounds, the mice are capable of regenerating hair follicles, sebaceous glands, dermis, adipose tissue, and cartilage in their ears following large ear punch wounds. He noted that, “The various tissues in the ear grew back through formation of blastema-like structures - the same sort of biological process that a salamander uses to regenerate a severed limb.” This research may be used for further research in regenerative medicine for humans.

Victoria Shanmugam, MD
Assistant Professor of Medicine
MedStar Georgetown University Hospital, Washington DC

The National Institutes of Health has awarded an R01 grant in the amount of $1.9 million over five years to Georgetown University Medical Center (GUMC) to support Dr. Shanmugam’s research. The grant, awarded by the NIH’s National Institute for Nursing Research, aims to advance the wound care field by elucidating critical molecular pathways driving chronic wounds. A rheumatologist, Dr. Shanmugam is the principal investigator for the Wound Etiology and Healing (WE-HEAL) study at GUMC in collaboration with colleagues at MedStar Georgetown University Hospital.

“Recent studies suggest that mortality in patients with chronic wounds approaches that seen in some malignancies,” she says. “There is an urgent need to identify effective therapies that both improve
ultimate wound outcome, and alleviate patient symptoms and suffering,” she said.

For this project, Dr. Shanmugam is collaborating with a multidisciplinary team including Jane Fall-Dickson, Ph.D., RN, assistant chair for research in the Department of Nursing at GUMC’s School of Nursing & Health Studies; Christopher Attinger, M.D., director of the Georgetown Center for Wound Healing at MedStar Georgetown University Hospital; and Anton Wellstein, Ph.D., professor of oncology and pharmacology at Georgetown Lombardi Comprehensive Cancer Center. Utilizing the resources of the Georgetown-Howard Universities Center for Clinical and Translational Science, and in collaboration with investigators at the J. Craig Venter Institute, Shanmugam and her team will apply high-throughput genomic technologies to investigate the interplay between host immune and angiogenesis pathways, the bacterial biofilm in the wound bed, and patient reported pain and analgesic use.

“The goal of this research is to gain insights at a basic science level that ultimately will help improve wound outcomes and alleviate pain for patients with chronic wounds,” Shanmugam says.

Aamir Siddiqui, MD
Division Head of Plastic and Reconstructive Surgery
Henry Ford Hospital, MI

The Center for Medicare and Medicaid Innovation (CMMI) has awarded a nearly $4 million grant to Henry Ford Hospital to support an initiative that aims to decrease the incidence and cost of hospital-acquired pressure ulcers while improving patient mobility and comfort. Dr. Siddiqui is the principal investigator in this project.

The three-year Health Care Innovation Challenge project, titled, “Mobility, the Sixth Vital Sign” will be centered on:

- Decreasing the number of hospital-acquired pressure ulcers
- Decreasing the cost of hospital-acquired pressure ulcer care
- Decreasing the immobility-related ventilator-associated pneumonias
- Improving patient satisfaction and comfort

“Loss of mobility and decreased activity are a common feature of modern hospital-based care and can lead to complications like pressure ulcers and slow recovery,” Dr. Siddiqui said. “This is an issue our caregivers are already passionate about and the funds give Henry Ford the opportunity to make an impact on a larger scale by using evidence-based interventions to prevent complications instead of just treating the problems.”

It is estimated that the savings will be greater than $11 million, based on costs to Medicare after hospital discharge for patients who develop pressure ulcers. Similar savings for Henry Ford Hospital are expected because of fewer care needs and shorter lengths of stay while patients are hospitalized.

“We will be implementing learning initiatives to educate caregivers as well as providing them with real-time bedside pressure monitors for visual feedback regarding when and how to reposition patients in the intensive care units.”

The monitors also include handheld and web-based access for smartphones, tablets and computers.

Ginger Tolar
Intellicure, Inc.

Intellicure placed #52 on Houston’s Fast 100 list for 2012. The award is given by the Houston Business Journal to the fastest growing companies in the Houston area. The journal also recognized Intellicure as one of Houston’s Best Places to Work for 2012, given to companies with the highest employee satisfaction. In addition, the journal named Intellicure one of Houston’s FastTech 50 for the second consecutive year.
May 1-5, 2013

Wound Healing Society

Call for Abstracts!

Abstract Submission System opens September 17th

Please review the detailed Submission Guidelines prior to beginning the submission process

Deadline for Abstract Submission
December 17, 2012

For up-to-date information visit our website – woundheal.org or contact the WHS at 407-647-8839

Acknowledgment of acceptance will be sent via email in late January to the Abstract Submitter.

Wound Healing Society annual meeting at SAWC-WHS

Colorado Convention Center
700 West 14th Street
Denver, CO 80202
www.denverconvention.com

NEW MEETING FORMAT

Wed   Thurs   Fri   Sat   Sun

Wound Healing Society Annual Meeting
Symposium on Advanced Wound Care

www.woundheal.org
We are proud to bring to you the Annual Meeting of the Wound Healing Society, to be held from May 1-5, 2013 in Denver Colorado at the Colorado Convention Center. It will again be held in conjunction with the Symposium on Advanced Wound Care (SAWC). This successful collaboration remains the largest interdisciplinary wound care conference where cutting edge science propels evidence based clinical care. We continue to attract the best presenters and enthusiastic participants.

This meeting is especially exciting because it represents the 25th anniversary of the WHS. The silver city of Denver is the perfect setting for our silver anniversary. The program committee has developed a program that will honor the past, showcase innovation and highlight our uniqueness. The Wound Healing Society scientific meeting will begin one day earlier, Wednesday, May 1, 2013, than the joint meeting with SAWC. The SAWC meeting will continue for one day after the WHS program formally ends. This was designed to promote a smaller, more intimate scientific program within the setting of the 2,000 attendee larger symposium.

Highlights of the silver anniversary program include:

1. **25 Years of the Wound Healing Society.** We will look back at many of the important people and ideas associated with the WHS over its history. Previous presidents of the organization have been invited to present their perspective on our society's legacy. The opening lecture on day one will be presented by Luisa DiPietro, who will provide a brief historical perspective on wound research, followed by discussion on cutting-edge current science from her laboratory.

2. **WHS Keynote Speaker.** Timothy M Crombleholme, MD, a world-renowned scientist and surgeon from the University of Colorado, will enlighten us on the past, present, and future of regenerative wound healing science. Dr. Crombleholme's clinical investigations include a National Institutes of Health (NIH)-funded multicenter trial to determine the best treatment for Twin-Twin Transfusion Syndrome and research on new techniques for open fetal surgery and fetoscopic surgery. His laboratory research includes NIH-funded studies of gene therapy in tissue repair, fetal gene therapy, and the role of the fetal fibroblast in fetal wound healing.

3. **3M Lecture.** This year, the Wound Healing Society Foundation has initiated an annual Thomas K. Hunt Endowed Lectureship. Dr. Thomas K. Hunt will present the first lecture in this series.

4. **Joint Session with Collaborating Organization.** The WHS is proud to announce that this year’s joint session is with the Society of Investigative Dermatology (SID). SID was established in 1937 to advance and promote the sciences relevant to skin health and disease through education, advocacy, and scholarly exchange of scientific information. The topics to be discussed in this plenary session include cell-cell interaction and keratinocyte dysfunction.

5. **Young Investigators Plenary Session.** This session recognizes young talented scientists submitting the most meritorious Abstracts as judged by a panel of experts in the field. The top four candidates will be awarded the Young Investigator Award.

6. **General Plenary Session.** MicroRNAs (miRNAs) will be the theme of the general session. MiRNAs are small, non-coding RNAs that hold tremendous therapeutic potential in regenerative tissue repair. Chandan Sen will discuss the role of miRNAs in regenerative medicine. Marjana Tomic-Canic will present on the significance of miRNA in wound epithelialization, and Kenneth Liechty will review the significance of miRNA regulating wound fibrosis outcomes.

7. **Animal Model Roundtable.** The field of wound healing is highly dependent on pre-human testing in animal models. Unfortunately, there is little consensus regarding how best to apply the numerous animal model options. This session will be a venue for researchers and interested participants to discuss and define parameters by which a logical and transparent paradigm can be developed to answer questions regarding the appropriate use of animal models.

8. **3M Fellowship Program.** This session highlights both the 2013 3M Fellowship winner as well as a comprehensive presentation from the 2012 winner.

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9. **Awards Presentation.** WHS regularly recognizes individuals who have made contributions to the field of study as well as the organization. The awardees range from new researchers starting out to established scientists who have added so much to the organizations. These awards are presented during the reception and business meeting.

10. **Plenary Sessions.** Six speakers will present new, innovative concepts in the field of wound healing sciences. Topics include Omics, Inflammation, Skin Regeneration, Fibrosis, Extracellular Matrix, and Wound Infection and biofilms.

11. **WHS Members Reception.** Just as important as the science is the social aspect of what we do. The reception is a chance to catch-up with old acquaintances and make new friends. The Blue Bear Cafe in the Convention Center is the perfect setting for this enjoyable event.

12. **Meet the Mentors Session.** This popular session returns and is designed to network, encourage and build relationships with young investigators in the field of wound healing.

Get ready to submit your abstracts. **The abstract submission deadline is December 17, 2012.** All accepted abstracts are published in Wound Repair and Regeneration. Qualified abstracts may be eligible for various awards including Young Investigator, Industrial Research and Development, and Trainee Travel. Other awards this year include Junior Faculty and Organogenesis Translational Regenerative Science. Put your research where people will see it. WHS/SAWC 2013 is the place for cutting edge science.

Follow the meeting status on the website and Facebook. WHS members will get a discount on registration. We hope you enjoy the meeting as much as we enjoyed putting it together!

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### National & International Meetings

**December 15-19, 2012**
**American Society for Cell Biology (ASCB) Annual Conference**
San Francisco, CA
Contact: 301-347-9300; website www.ascb.org

**February 18-22, 2013**
**35th Annual John A. Boswick, M.D. Burn and Wound Care Symposium**
Wailea Beach Resort & Spa Marriott, Maui, Hawaii

**March 19-22, 2013**
**Nursing 2013 Symposium**
Paris Hotel & Casino, Las Vegas, NV
800-346-7844 x7793
Helen.solensky@wolterskluwer.com

**April 23-26, 2013**
**American Burn Association Annual Meeting**
Palm Springs Convention Center, Palm Springs, CA
312-642-9260
www.ameriburn.org

**May 1-5, 2013**
**Symposium on Advanced Wound Care (SAWC) Spring Meeting**
Wound Healing Society Annual Meeting
Colorado Convention Center, Denver, CO
http://spring.sawc.net
www.woundheal.org

**June 13-15, 2013**
**Undersea and Hyperbaric Medicine Society Annual Scientific Meeting**
Lowes Royal Pacific Resort, Orlando, FL
919-490-5140/877-533-8467
lisa@uhms.org

**October 23-26, 2013**
**Tissue Engineering International & Regeneration Medicine Society (TERMIS) Fourth World Congress**
Shanghai, China
www.termis.org

**December 14-18, 2013**
**American Society for Cell Biology Annual Meeting**
New Orleans, LA
www.ascb.org
You Might Want to Know

Making Time for Leadership
By Ed Oakley, CEO, Enlightened Leadership Solutions

Time management is a key challenge of leadership. When we’re feeling pressed to get too many things done, our stress levels increase. When we’re highly stressed, it’s more challenging to be a conscious, effective leader.

Specifically, we all have the need to manage many creative demands at the same time. Creative demands are any tasks that require “thinking” time, not just action. It’s a major time management issue. Examples include:

- Writing an important report
- Planning a critical meeting
- Preparing for a performance appraisal
- Planning a presentation
- Thinking through an organization change
- Planning a change management situation
- Preparing for a meeting with your boss’s boss
- Developing a new process
- Any other kind of creative work

The Time Management Problem
Every one of us has many of these to do every week, if not every day. The problem has to do with “The Myth of Multi-Tasking,” the title of a book researched and written by my friend, Dave Crenshaw. In it, he shares substantial data that proves how ineffective, inefficient, and non-productive multitasking is – even for women!

Every time we have to switch gears in the middle of a creative task, we lose effectiveness. Have you ever been writing an important report, but were interrupted umpteen times in the process? Of course you have. What happens every time you get back to work on the report? You have to go back and review where you are so you’ll know where to go next. Every time you repeat that process, you’re wasting time you wouldn’t have wasted if you hadn’t been interrupted.

At the same time, have you ever set aside 30 minutes of quiet time to prepare for that upcoming meeting, only to stare at your paper or screen and realize you just aren’t ready to work on that project? Your mind is too filled with everything else on your plate, and your energy is drained as you try to force your mind to focus on the task at hand.

The Time Management Solution
Well, there’s good news! The solution to both time management scenarios is the same and simple. Here is the gist of the solution. There is one and only one time when multi-tasking is effective. It’s when your subconscious mind is doing it.

Your subconscious mind has virtually no time constraints or limitations. It is infinitely creative and doesn’t require your conscious attention for it to do its work.

So, here is a process I recommend you use to turn your subconscious mind loose on all those creative projects that are begging for your attention. You will accomplish your creative demands much more easily and efficiently, and you’ll even get energized by the process. It’s very possible you’re already doing this without thinking about it!

Managing Multiple Creative Demands is a three-step process:

1. Create a separate folder for each of your creative demands and label them (These can be either electronic or hard folders, whichever you prefer. I use paper for big projects and electronic for small ones.)

2. Write down in the folder an open-ended, forward-focused question whose answers are the solution to your specific creative project. I’ll share an example below.

3. Capture your ideas in the folder whenever they come to you.

So, the folder is the place to collect the various thoughts that come up about the project or task. Over time the answers will evolve naturally with very little conscious effort or energy required. In fact, the process generates energy!
The effective question is what triggers the subconscious mind to do its work in its own time. An example of a question I might put in a folder for an upcoming presentation is, “How would I design this presentation to optimize its value to the audience?”

When you first write down the question in the folder, you’ll probably have immediate ideas. Capture them. As soon as you run out of ideas, close the folder. Don’t worry, your unconscious mind is now working on the task.

You cannot predict when the answers will come, but they will. You might be out for a run, in the shower, talking with a colleague, even waking up from a dream. When they come, capture them immediately and put them in the appropriate folder as soon as you can.

At first, the answers that come up for the question are likely to be random ideas. Over time, the ideas that come up will include how the ideas all fit together. The project will integrate itself into the optimum solution over time.

Every time you have another idea, you’ll get energized. Where you’ve struggled to accomplish your creative projects in the past, you’ll now do it more easily and get an energy boost instead of a drain. Time management becomes much less of an issue.

A Real-Time Example Happening Now

Here’s an example happening just as I’m writing this article. About three weeks ago, I was invited to do a 75-minute presentation on Project Leadership to about 200 project managers of a major aviation company. It will be the first morning of a weeklong program, so it is a great opportunity to influence the value of the entire week.

In the sense that I’m extremely busy, this opportunity came at a bad time, and I’ve never given this presentation before. Yet, it’s a great opportunity for Enlightened Leadership Solutions to demonstrate the value of what we do. So knowing that I have this “secret” tool for easily and smoothly preparing something as important as this presentation, without taking a lot of time or creating more stress, I said yes.

Immediately I set up a new note page in Evernote, a computer-based software tool I use to capture and manage information of many types. This note page was my “folder.” At the top of the page, I typed the Effective Question, “What would this talk be like to provide the greatest possible value to the project managers and optimize the potential of doing more business with the company?”

I immediately had a few creative ideas, so I captured them on the page. Over the last several weeks, I have had ideas that respond to this question pop up frequently. Since I can add to my Evernote file from my iPhone, iPad or computer, it’s been easy to capture the ideas as they came up.

Yesterday, I suddenly realized that I had a similar presentation, and the slides for it, but much longer than I need here. So, in about 30 minutes of highly energized, stress-free time, I created about 90% of the slide presentation I’ll use by eliminating a bunch of the slides and modifying some of the terminology.

Several real examples/stories have popped up over the weeks that fit perfectly for this specific audience. Numerous pieces of important context have come to my attention. Each time, I’ve captured the ideas in my Evernote file. Bottom-line, the presentation is tomorrow, and in about 10 minutes, I’m heading out to play golf. I have total confidence I’ll be fully prepared for my presentation tomorrow, and I haven’t had to stress over it. :-)

Start using this simple, practical time management process and watch yourself accomplish more in less time. And isn’t that the expectation for each of us these days? Meanwhile, because you’re less stressed, you’ll be in a better position to provide conscious, encouraging leadership.

Ed Oakley is co-author of the best-selling book Enlightened Leadership: Getting to the Heart of Change, and other books, including Be A Trusted Leader: Accelerate Your Influence Now!” He edits “ENLIGHTENED LEADERSHIP” iPad magazine, and this article first appeared there. For a free subscription to his iPad magazine, email to contactus@enleadership.com or 303-729-0540 Mountain Time in the U.S.
Aberrant Wound Healing: Is Epigenetics the Answer?
By Kenneth W. Finnson and Anie Philip, McGill University, Montreal, Canada

Background
Emerging evidence indicates that the field of epigenetics has significant implications for the future of wound healing research. This article highlights some of the recent advances in understanding epigenetic regulation of wound healing and how this research might be translated into clinically meaningful therapies in the future.

Epigenetics 101
Epigenetics can be broadly defined as the study of chemical reactions that switch parts of the genome on and off at strategic times and locations during the development and maintenance of a multicellular organism. These chemical reactions, or “epigenetic mechanisms,” include (1) DNA methylation, (2) histone modification and (3) micro RNAs (miRs) which in combination can alter the expression of a large number of genes in a cell at any one time. DNA methylation involves the addition of a methyl group to specific regions of our DNA known as “cytosine-phosphoguanine (CpG) dinucleotides” by enzymes known as DNA methyltransferase (DNMTs), which, as a general rule, leads to the turning off or “silencing” of gene transcription.

Histones are proteins found in eukaryotic cells that act as spools around which DNA winds, which serves to package DNA into compact structural units known as nucleosomes. Histones have long tails protruding from the nucleosomes that can be modified by several different covalent modifications, including methylation, acetylation, and phosphorylation. These modifications alter histone-DNA interactions, leading to changes in gene transcription.

Finally, miRs are short, non-coding RNA molecules of about 19-25 nucleotides found in eukaryotic cells that bind to complementary nucleotide sequences on target messenger RNA (mRNA) transcripts and turn off gene expression either by blocking protein translation from the mRNA transcript or by promoting degradation of the target mRNA transcript.

Taken together, DNA methylation, histone modification, and transcriptional silencing by miRs constitute the main epigenetic mechanisms that are operative in eukaryotic cells and they have been the subject of intensive research over the past few years.

DNA methylation and histone modification in wound healing
Recent developments in research focused on epigenetic control of wound healing have revealed profound effects of epigenetic mechanisms on the biological properties of “myofibroblasts.” Myofibroblasts are specialized cells derived from fibroblasts by a process known as transdifferentiation. These cells produce important extracellular matrix components and a protein called alpha-smooth muscle actin (alpha-SMA) that endows them with the ability to contract the wound edges, and thus facilitate wound healing. However, excessive myofibroblast formation leading to increased production of extracellular matrix and alpha-SMA can result in scarring and fibrosis.

A recent study by Sem Phan’s group at the University of Michigan shows that DNA methylation is involved in silencing alpha-SMA expression in certain cell types such as epithelial cells, and that a lack of DNA methylation allows alpha-SMA to be expressed in fibroblasts, which occurs during “myofibroblast differentiation.” In addition, DNA methylation is sensitive to “hypomethylating” drugs, such as 5-aza-2’-deoxycytidine which decrease DNA methylation by blocking the DNMT enzyme, leading to increased alpha-SMA expression. These findings suggest that it may be possible to manipulate DNA methylation using drugs to regulate gene expression, leading to better control of wound repair events to facilitate healing or reduce scarring.

Recent data indicate that histone modifications also play an important role in controlling a-SMA expression in myofibroblasts. Of particular interest is the involvement of so-called histone deacetylases (HDACs), which, as their name implies, act by removing acetyl groups from histone proteins. In the context of pathological scarring (fibrosis), HDACs are thought to play a key role in decreasing transcription of genes that suppress alpha-SMA transcription, the overall result being a “de-repression” (or activation)

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of alpha-SMA transcription, and thus scarring. These findings have sparked an interest in the potential for using HDAC inhibitors for the treatment of fibrotic conditions such as scleroderma and renal fibrosis. In addition, they suggest that HDAC inhibition may also have therapeutic application for wound-associated fibrosis such as hypertrophic scarring and keloid formation. Along these lines, a recent study found that the HDAC inhibitor “trichostatin” reduced collagen production and increased apoptosis in cultured keloid fibroblasts, suggesting that investigating HDAC inhibitors for treatment of pathological scarring will be a fruitful avenue for future research.

MiRs in wound healing

‘Micro RNA epigenetics’ has generated considerable interest in the wound healing research community, being touted as an exciting new avenue for wound healing research. Emerging evidence indicates that miRs play an important role in cutaneous wound repair, and that abnormal miR expression may result in disorganized or poor healing. Recent technological advances in miR research, such as polymerase chain reaction (PCR) arrays for profiling the expression of the most abundantly expressed and best characterized miRNA sequences in the human miRNA genome (miRNome), have prompted the investigation of miR expression in pathological skin conditions ranging from chronic (non-healing) wounds to excessive scarring and fibrosis.

A recent study employing the use of this technology was carried out by Chandan Sen and colleagues at Ohio State University who explored how miRs are involved in limiting wound re-epithelialization under hypoxic conditions, using a murine ischemic wound model. They found that hypoxia inducible factor-1alpha (HIF-1alpha), a master regulator of oxygen homeostasis, was elevated in ischemic wounds and that HIF-1alpha induced the expression of miR-210, which, in turn, decreased expression of E2F3, a factor known to increase cell proliferation. Importantly, delivery of miR-210 ‘antagomir’, which silences endogenous miR-210, increased keratinocyte proliferation in vitro, whereas delivery of miR-210 “mimic” had the opposite effect, demonstrating a key role of miR-210 in limiting keratinocyte proliferation.

A more recent study by Marjana Tomic-Canic’s group at the University of Miami has identified a candidate set of miRs (miR -16, -20a, -21, -106a, -130a and -203) whose levels were increased in a cohort study of 10 patients with chronic non-healing wounds (venous ulcers). Among these, miR-21 and miR-130a were shown to delay epithelialization in an acute human skin wound model and the miR-21 was effective in decreasing epithelialization and granulation tissue formation in a rat cutaneous wound model, suggesting that up-regulation of these miRs in venous ulcers might contribute to the pathogenesis of chronic wounds. It will be interesting to know whether miR expression profiles are similar in other types of chronic wounds such as diabetic foot ulcers and pressure ulcers.

Clinical Relevance

An important question raised from the above findings is whether understanding epigenetic mechanisms in aberrant wound healing or scarring will eventually lead to meaningful therapies for the treatment of these conditions. Although research on epigenetic mechanisms in wound healing and scarring is still in its infancy, many studies point towards the feasibility of using an “epigenetic-based” therapy for improving wound healing and scarring outcomes in humans. Several small molecule drugs that inhibit DNMTs or HDACs are already being tested in clinical trials for the treatment of human cancers. If these drugs are deemed safe and tolerable in these studies, their application to pathological conditions such hypertrophic scarring or keloids should be expedited. Several clinical trials are exploring the potential use of miRs as potential biomarkers for a variety of human diseases, including a Phase I clinical trial currently testing a miR-122 antagonir for the treatment of Hepatitis C. Further research investigating DNA methylation, histone modification, and miR expression in larger cohorts of patients with chronic wounds and other wound/scar associated pathologies are needed before such technology can be used in a clinical setting.

REFERENCES


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Blast from the Past: 1997 Annual Meeting
Harriet W. Hopf, MD

The Wound Healing Society Seventh Annual Meeting was held at the Opryland Hotel in Nashville, TN from May 12-14, 1997 and included a joint meeting day with the Wound Ostomy and Continence Nurses Society.

The program began with the joint meeting day on June 12, which included sessions on the science of wound healing, levels of evidence for topical treatments, reimbursement, and skin substitutes. A total of 159 abstracts were presented at the meeting, 62 in 9 oral abstract sessions and 97 as posters. President Richard A.F. Clark gave the WHS Presidential Address on the topic Integrins in Wound Repair. Plenary topics included: Aging: Effects on Wound Healing, Excessive Healing, Growth Factor Signal Transduction, and Transgenic Animals in Wound Healing Research. Plenary speakers included once and future WHS Presidents Tom Mustoe, David Steed, Jeff Davidson, Greg Schultz, and Lillian Nanney. Six Young Investigator Award Winners were recognized for the first time based on abstract quality, although there was not yet a formal Young Investigators Award session. Current President Bob Diegelmann had an oral abstract on proteases in acute open human dermal wounds (presumably including his own) with a Young Investigator Award Winner. Marty Robson was honored with the Outstanding Service Award, and TK Hunt with the Lifetime Achievement Award.

A highlight of the meeting was the WHS Banquet, held at the Nashville Parthenon, an art museum that is a full-scale replica of the Parthenon in Athens—in concrete. The food was plentiful and delicious, the room was packed, and there was plenty of opportunity for networking, catching up with old friends, and making new ones. The evening was capped by a spectacular thunderstorm, viewed perfectly from the front portico.

I have particularly strong memories of the 1997 meeting, probably because I was 11 weeks pregnant at the time. I grew to know each food purveyor well, particularly those on the long walk from my room through two atria to the meeting area. At the last minute, my mentor, TK Hunt, was unable to attend the meeting in person to receive his award. He asked me to stand in for him and read his speech. Now that is a humbling experience.
Education
Arti B. Masturzo, MD, Chair

The Education Committee has been busy this year. Earlier this year, members noticed the rise in wound certification programs currently available. We felt that as a committee, we wanted to comment on the current certification trends and also provide some insight into the impact it has both clinically and from an industry standpoint. We are in the process of writing a white paper for publication that we hope to have out in 2013. The committee is also working diligently to freshen up the basic wound care course that WHS offers yearly at SAWC/WHS as well as multiple subspecialty meetings.

Government Relations
Robert S. Kirsner, MD, PhD, Chair

The WHS Government and Regulatory Committee is focused on a long-term goal of increasing NIH funding in wound care. The first part of this effort is to better understand the current funding status for wound care across NIH institutes. We will study NIH funding patterns over a period of several years, the number of projects funded, and their overall dollar amount, along with the number of RFAs and number of investigators funded by the NIH. In order to accomplish this goal, we are reviewing the current NIH funding to get baseline data. Using search terms and metrics previously decided upon by members of this group, and searching the NIH website, this committee output will likely be worthy of a publication. The work begins in earnest to develop a plan to affect funding, and with board approval enact that plan.

As part of our committee, the subcommittee on guidelines has been hard at work updating the WHS guidelines for acute and chronic wounds. As most know, we currently have guidelines on treatment of Acute and Chronic Wounds (Venous Ulcers, Pressure Ulcers, Diabetic Foot Ulcers and Arterial Ulcers), as well as guidelines on prevention of each of the four common chronic wounds. Since their release more than five years ago, new information has been published. The first revision will be completed in 2013.

Pressure Ulcer Guideline revisions are being led by Gayle Gordillo, MD. Arterial Ulcer Guideline revisions are led by Daniel Federman, MD. Diabetic Foot Ulcer Guidelines revisions are led by Larry Lavery, DPM and co-chaired by David Margolis, MD, PhD. The Venous Ulcer guidelines revisions are being led by Bill Marston, MD. Each task force will create a technical report of new research since the release of the prior guidelines and as an example, the report for the Venous Ulcer Guidelines were just published online and will soon be in print in Wound Repair and Regeneration. (Tang JC, Marston WA, Kirsner RS Wound Healing Society (WHS) venous ulcer treatment guidelines: What’s new in five years? Wound Repair Regen. 2012 Sep-Oct;20(5):619-37.)

If you are interested in being part of the task force, please contact either the task force leaders for the specific areas or me at rkirsner@med.miami.edu. We hope to present the draft guidelines at the annual meeting for comment.

Publications
Luisa DiPietro, MD

The WHS Publications Committee met on October 31, 2012, to discuss both Wound Repair and Regeneration (WRR) and Advances in Wound Care (AWC). Members in attendance included Drs. Sadanori Akita, Lu DiPietro, Geoff Gurtner, Kris Kieswetter, Marijana Tomic-Canic, and Tai-Lan Tuan. WRR Editor-in-Chief Dr. Pat Hebda also attended the call.

For WRR, the discussion centered on both mechanical and conceptual aspects of the journal. Several issues were discussed, including optimization of the editorial review process and the need for additional assistance for the Editor-in-Chief. The committee considered the composition and participation of the editorial board, and made several suggestions to Dr. Hebda regarding the involvement of the editorial board in the review process. Dr. Hebda reported that several special content items and issues are in the works, including a special issue for the 25th Anniversary of WHS; this issue will be the second issue of 2013.

For AWC, Editor in Chief Dr. Chandan Sen (who was out of the country at the time of the call) was not continued next page
able to attend the call but provided a report that indicated that AWC has published 6 issues in 2012 and will publish 10 issues in 2013.

The committee discussed several additional issues including the need to monitor any competition between WRR and AWC and the need to consider plans for cross-fertilization between the two journals.

**Website**

*Andrew Baird, PhD, Chair, and the Website Team*

**Membership has its privileges…**

Several years ago, the Website Committee was founded to ensure that the WHS had a strong public presence on the Internet. From its earliest days as a static web page with links of interest, the WHS website has evolved into a dynamic and interactive hub for communication amongst WHS members. But it’s only as good as those who use it. Over the course of the fall, winter and spring Newsletters, we will be highlighting some of the resources that are available to WHS members via its website. We want to emphasize the “benefits of WHS membership.” (Yes, tell your friends!)

For this fall issue of the Newsletter, we thought that we would explain to you what the Website Committee does for the WHS website. Contrary to popular misconception, we don’t decide what gets posted on the website. Instead, our role is to curate the information that is submitted by WHS leadership, other committees, and our members to make sure it gets the visibility it needs. Over the past couple of years, you may have noticed how the website has changed -- hopefully, for the better! At our monthly meetings, we look at different ways we can present information most effectively --- and hopefully better than before --- so, if you have comments (good and bad!), please let us know.

There are many elements available in the website that we try to keep up to date for WHS membership. They include the Directory of Members (have you renewed?), as well as short descriptions of member research and clinical activities. Let me reiterate, however: because we curate and do not invent content, it’s only as good as you make it! So please, go to your profile and keep it updated. Your peers can only contact you if they have the right information and you can get new collaborations by highlighting your expertise and interests.

As you explore the WHS website, take a close look at the **MY PROFILE** resources available on your personal member page (did you know you had one?). It’s easy: first LOG IN (yes, you have to be a paid up member!), then, on the left panel, go to the **MY PROFILE** tab and start to explore. Maybe start by adding your picture or favorite avatar. You may find a community of like-minded investigators who have gotten together to discuss common problems, common research interests or, as in the case of the Program Committee, a pre-meeting discussion for a roundtable at the Denver meeting next May. And if you want to create your own, go ahead, it’s just a click away. You can make it public to other WHS members or make private and by invitation only. You can use it to post your pictures of a recent meeting you attended or just to pull together your own discussion group. But you do have to be a member, and that’s a benefit to membership!

Resources available on our website were pulled together by a talented group in our management group Crow-Segal, with the philosophy of “Build it and they will come.” In the next issues of the newsletter and in some email blasts you will receive, the capabilities and capacity of your website will be explained in further detail. Of course, if there are any problems or suggestions for website, contact the Website Committee at lane@crowsegal.com. Alternatively if you want to put some hands-on time into the website, please join our community there to make it even better (see if you can find us!).

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The Wound Biotechnology Foundation (WBF) has as its primary mission the promotion of educational and research activities aimed at advances in tissue repair, wound healing, and regeneration. These activities are based on the belief that, ultimately, major advances in science and biotechnology will overcome the necessity for the standard wound care steps presently accepted and necessary to offset failure to heal.
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