

WOUND HEALING SOCIETY PROGRAM

DAY 1: WEDNESDAY, APRIL 5, 2017

WHS WELCOME AND INTRODUCTION

8:00 A.M. - 8:15 A.M. Upper Level - Ballroom 6D/6E

WHS SESSION A: WHF THOMAS K HUNT LECTURE (non-accredited)

8:15 AM - 9:15AM Upper Level - Ballroom 6D/6E

Moderators: Elof Eriksson, MD, PhD; Laura Parnell, BS, MS, CWS, Marjana Tomic-Canic, PhD

Speaker: Napoleone Ferrara, MD

In the spirit of the pioneering work of its namesake, the speaker of the Thomas K. Hunt Endowed Lecture is chosen by the Wound Healing Foundation for his/her major contributions to scientific inquiry that are likely to advance the field of wound healing. This one-hour session will provide an overview of the inspiration for the speaker's work, discuss how the research might impact the field of wound healing, and conclude with a vision for the future of the speaker's research.

BREAK

9:15 A.M. - 9:30 A.M.

WHS SESSION B: MOLECULAR MECHANISMS OF WOUND REPAIR

9:30 A.M. - 11:00 A.M. Upper Level - Ballroom 6D/6E

Moderators: Ardeshir Bayat, MB, BS, PhD; Traci Wilgus, PhD

Speakers: Bogi Andersen, MD; Anie Philip, PhD; George Sen, PhD

The wound healing process relies on coordinated effort of cell types within multiple layers of the skin, such as epithelial cells in the epidermis as well as fibroblasts in the dermis. In order for this process to be effective, precise molecular regulation of cellular functions such as proliferation, differentiation, migration and extracellular matrix production must exist. This session will highlight molecular mechanisms that control epidermal cell behavior and signaling pathways that regulate the production of extracellular matrix by fibroblasts.

BREAK

11:00 A.M. – 11:15 A.M.

WHS Session C: WOUND IMMUNOLOGY

11:15 A.M. – 12:45 P.M. Upper Level - Ballroom 6D/6E

Moderators: Kara Spiller, PhD

Speakers: Paul Bollyky, MD, PhD; Dan Kaplan, MD, PhD; Anna DiNardo, MD, PhD

Tissue homeostasis, disease, and response to injury are governed by complex interactions between immune cells and other non-immune cells involved in wound healing. These interactions are shaped by microenvironmental factors such as the extracellular matrix or the presence of pathogens. This session will discuss new research on how immune cell behavior modulates tissue repair processes and response to infection, with applications in the development of novel therapies for inflammatory skin disease and chronic wound healing.

LUNCH ON OWN

12:45 P.M. – 2:00 P.M.

WHS Session D: MICROBIOMES, BIOFILMS, AND HOST RESPONSE IN WOUND HEALING
2:00 P.M. – 3:30 P.M. Upper Level - Ballroom 6D/6E

Moderators: Elizabeth Grice, PhD; Lindsay Kalan, PhD

Speakers: Rob Knight, PhD; Manuela Martins-Green, PhD; Irena Pastar, PhD

Interactions between microbes and host cells play a central role in impaired wound healing. Rate of healing and clinical outcomes may be affected by the composition, diversity, and stability of the wound microbiota. This session will discuss the impact of the wound microbiome, biofilms, and host-microbe interactions on wound healing.

BREAK

3:30 P.M. – 3:45 P.M.

WHS Session E: EXPERIMENTAL MODELING THE HUMAN RESPONSE TO INJURY
3:45 P.M. – 5:15 P.M. Upper Level - Ballroom 6D/6E

Moderators: Lisa Gould, MD, PhD; Ivan Jozic, PhD

Speakers: Andrew Baird PhD; Rob Kirsner MD, PhD; Tai-Lan Tuan, PhD (USC Keloids)

No animal model completely recapitulates the complexity and heterogeneity of human wound healing. Translational research relies upon developing platforms that bridge the gap between disease mechanisms and biological targets and therapies that are patient-specific. In this session, distinguished speakers from the Wound Healing Society will demonstrate how they use model systems to identify therapeutic targets that impact wound healing.

BREAK

5:15 P.M. – 5:30 P.M.

SOCIAL EVENT FOR WHS MEMBERS

6:30 P.M.–10:30 P.M.

Registered WHS members are invited to board the Adventure Hornblower at 6:30pm for a memorable dinner cruise around the San Diego Bay. Shuttle bus services are available to and from the Convention Center. This is a WHS Members Only event, but limited guest tickets may be available for purchase. ****Tickets are required for entry. ****

Please pick up your reserved tickets at the WHS membership booth near the WHS General Session Room on the Upper Level.

DAY 2: THURSDAY, APRIL 6, 2017

WHS COMMITTEE MEETINGS

7:30 A.M. - 9:00 A.M.

Marriott Marquis: Catalina, Coronado, LaCosta, LaJolla, Malibu, and Newport Beach

BREAK

9:00 A.M. – 9:15 A.M.

SAWC SPRING OPENING CEREMONY

9:15 A.M. – 9:30 A.M.

UPPER LEVEL - Ballroom 20 CD

SAWC SPRING GENERAL SESSION: THE FIRE WITHIN

9:30 A.M. - 10:30 A.M.

UPPER LEVEL - Ballroom 20 CD

Moderator: Robert Kirsner, MD, PhD

Speaker: Allison Massari

BREAK

10:30 A.M. – 10:45 A.M.

WHS Session F: INTERNATIONAL SESSION: ETRS & WUWHS

10:45 A.M. – 11:45 A.M.

Upper Level – Room 6D

Moderators: Magnus Agren, MD; Susan Volk, VMD, PhD, Dipl ACVS

Speakers: Magnus Agren, MD; Marco Romanelli, MD, PhD; Tanya Shaw, PhD

The European Tissue Repair Society (ETRS) aims to promote knowledge and interchange between scientists, healthcare professionals, industry and other individuals that have an interest in tissue repair of all organs. In this session, three distinguished speakers from the ETRS will present innovative research findings in the area of tissue repair that were recently highlighted at the 2016 Congress of World Union Wound Healing Societies(WUWHS). For more than two decades, the WUWHS Congress has provided a world-wide exchange of information between wound societies and other relevant stakeholders, including international and global agencies, as well as personal-level friendship exchanges..

BREAK

11:45 P.M. – 12:00 P.M.

INDUSTRY-SUPPORTED LUNCH SYMPOSIA

12:00 P.M. - 1:30 P.M.

BREAK

1:30 P.M. – 4:45 P.M.

WHS Session G: YOUNG INVESTIGATORS SYMPOSIUM

1:45 P.M. - 4:00 P.M.

Upper Level - Room 6D

Moderators: Magnus Agren, MD; Elof Eriksson, MD, PhD; Marjana Tomic-Canic, PhD

In this session, young investigators involved in cutting-edge research will compete for the WHS Young Investigator Award. The winner will present his/her work at the European Tissue Repair Society's Annual Congress. Oral presentations will feature the top eight abstracts submitted to the WHS by young investigators.

- 1:45 G.01 - NOVEL FORMATION OF COMMON WOUND BACTERIAL BIOFILMS ON HUMAN INCISIONAL AND EXCISIONAL CUTANEOUS WOUND MODELS ENABLES IDENTIFICATION OF BACTERIAL-SPECIFIC VOLATILE ORGANIC COMPOUND PROFILES WITH CLINICAL TRANSLATABILITY IN WOUND INFECTION THERANOSTICS**
M. Ashrafi¹, L. Novak-Frazer¹, M. Bates², M. Baguneid³, T. Alonso-Rasgado¹, R. Rautemaa-Richardson¹, A. Bayat¹
¹ The University Of Manchester, Manchester, Greater Manchester, United Kingdom² MCBA Consulting, Cardiff, WALES, United Kingdom³University Hospital Of South Manchester, Manchester, Greater Manchester, United Kingdom
- 2:00 G.02 - NOVEL MECHANISMS OF COLLAGENASE SANTYL® OINTMENT (CSO) IN WOUND MACROPHAGE POLARIZATION AND RESOLUTION OF WOUND INFLAMMATION**
A. Das¹, S. Datta¹, S. Chaffee¹, S. Khanna¹, E. Roche², L. Shi², C. K. Sen¹, S. Roy¹
¹ Ohio State University, Comprehensive Wound Center, Center For Regenerative Medicine And Cell Based Therapies, Department Of Surgery, Davis Heart And Lung Research Institute, The Ohio State University Wexner Medical Center Columbus, OH, USA² Smith And Nephew, Research & Development, Advanced Wound Management Fort Worth, TEXAS, USA
- 2:15 G.03 - APPLICATION OF SHOTGUN METAGENOMICS TO STUDY MULTI-KINGDOM MICROBIAL COMMUNITIES OF CHRONIC NON-HEALING WOUNDS AND THEIR ASSOCIATION WITH CLINICAL OUTCOMES**
L. Kalan¹, M. Loesche¹, S. Gardner², E. Grice¹
¹ University Of Pennsylvania, Dermatology Philadelphia, PA, USA² University Of Iowa, Nursing Iowa City, IA, USA
- 2:30 G.04 - FLUOXETINE AS A POTENTIAL THERAPEUTIC TARGET FOR MESENCHYMAL STEM CELLS- MEDIATED IMPROVEMENT OF WOUND HEALING**
C. Nguyen^{1,2}, D. Tartar^{1,2,3}, M. So^{1,2}, M. Bagood^{1,2}, A. Nguyen¹, A. Adams^{1,2}, C. Aroh^{1,2}, A. Soulika¹, J. Nolta², R. R. Isseroff^{1,2,3}
¹ University Of California - Davis, Dermatology Sacramento, CA, USA² University Of California - Davis, Institute Of Regenerative Cures Sacramento, CA, USA³VA Sacramento, Dermatology Sacramento, CA, USA

- 2:45 G.05 - STAPHYLOCOCCUS AUREUS TRIGGERS INDUCTION OF MIR-15B-5P TO DIMINISH DNA REPAIR AND DE-REGULATE INFLAMMATORY RESPONSE IN DIABETIC FOOT ULCERS**
H. A. Ramirez¹, I. Pastar¹, I. Jozic¹, O. Stojadinovic¹, R. Stone¹, N. Ojeh^{1,2}, R. Kirsner¹, M. Tomic-Canic¹
¹ University Of Miami Miller School Of Medicine, Wound Healing And Regenerative Medicine Research Program, Department Of Dermatology And Cutaneous Surgery Miami, FL, USA² University Of The West Indies, Faculty Of Medical Sciences Bridgetown, Saint Michaels, Barbados
- 3:00 G.06 - MICRORNA-200B-ZEB-1 SIGNALING REGULATES EPIDERMAL WOUND ANGIOGENESIS**
K. Singh¹, M. Sinha¹, D. Pal¹, S. Gnyawali¹, F. Soto-Gonzalez¹, S. Khanna¹, S. Roy¹, C. K. Sen¹
¹ Ohio State University, Comprehensive Wound Center, Center For Regenerative Medicine And Cell Based Therapies, Department Of Surgery, Davis Heart And Lung Research Institute, The Ohio State University Wexner Medical Center, Columbus, OH, USA
- 3:15 G.07 - THE IMPACT OF PATIENT TRAVEL DISTANCE TO A WOUND CARE CENTER ON OUTCOMES OF CHRONIC WOUNDS**
K. Trang⁴, D. C. Tran⁴, J. Parsley², R. Robertson², E. Fukaya¹, S. K. Sen³, G. C. Gurtner³, V. Chandra¹
¹ Stanford University, Division Of Vascular Surgery Stanford, CA, USA² Stanford Health Care, Advanced Wound Care Center Redwood City, CA, USA³ Stanford University, Division Of Plastics And Reconstructive Surgery Stanford, CA, USA⁴ Stanford University, School Of Medicine Stanford, CA, USA
- 3:30 G.08 - A DOUBLE-BLIND RANDOMIZED CONTROLLED TRIAL DEMONSTRATES FOR THE FIRST TIME EVIDENCE FOR THE ROLE OF TOPICAL EPIGALLOCATECHIN-3-GALLATE IN REDUCING ANGIOGENESIS, INFLAMMATION AND SKIN THICKNESS IN HUMAN SKIN SCARRING: A NON-INVASIVE, MORPHOLOGICAL AND IMMUNOLOGICAL STUDY**
S. Ud-Din¹, P. Foden², M. Douglas⁵, M. Mazhari⁴, S. Al-Habba⁴, M. Baguneid³, A. Bayat¹
¹ University Of Manchester, Plastic And Reconstructive Surgery Research Manchester, Greater Manchester, United Kingdom² University Hospital Of South Manchester, Medical Statistics Manchester, Greater Manchester, United Kingdom³ University Hospital Of South Manchester, vascular Surgery Manchester, Greater Manchester, United Kingdom⁴ Central Manchester University Hospitals NHS Foundation Trust, Adult Histopathology Manchester, Greater Manchester, United Kingdom⁵ Grosvenor Nuffield Hospital, Chester, CHESHIRE, United Kingdom

BREAK

4:00 P.M. – 4:15 P.M.

WHS SESSION H: CONCURRENT ORAL ABSTRACTS I (non-accredited)

4:15 P.M. - 5:15 P.M.

Oral abstract presentations will feature the highest scoring abstracts submitted to the WHS.

Acute Wounds (H1) Upper Level - Room 6D

Moderators: Traci Wilgus, PhD; Swathi Balaji, PhD

- 4:15 H1.02 - PERINEAL WOUND HEALING IS SIGNIFICANTLY BETTER WITH THE USE OF COLLATAMP® IN PATIENTS UNDERGOING ABDOMINOPERINEAL EXCISION OF RECTUM OR PROCTECTOMY**
A. Jackson¹, G. Kaur¹
¹ Scunthorpe General Hospital, Surgery Scunthorpe, N LINCS, United Kingdom
- 4:25 H1.03 - HISTOMORPHIC ASSESSMENT OF NON-INVASIVE QUANTITATIVE IMAGING IN PROGRESSION OF CUTANEOUS HEALING IN HUMAN SKIN: DYNAMIC OPTICAL COHERENCE TOMOGRAPHY VERSUS HIGH FREQUENCY ULTRASOUND**
S. Ud-Din¹, P. Foden², M. Mazhari³, S. Al-Habba³, M. Baguneid⁴, A. Bayat¹
¹ University Of Manchester, Plastic And Reconstructive Surgery Research Manchester, GREATER MANCHESTER, United Kingdom² University Hospital Of South Manchester, Medical Statistics Manchester, GREATER MANCHESTER, United Kingdom³ Central Manchester University Hospitals NHS Foundation Trust, Adult Histopathology Manchester, GREATER MANCHESTER, United Kingdom⁴ University Hospital Of South Manchester, Vascular Surgery Manchester, GREATER MANCHESTER, United Kingdom
- 4:35 LATE BREAKING ABSTRACT**

4:45 H1.05 - EQUIPPING THE NEXT GENERATION OF LEADERS IN WOUND CARE

E. Minior¹, I. Scomacao¹, C. Cavaliere¹

¹ CLEVELAND CLINIC, PLASTIC SURGERY CLEVELAND, OH, USA

4:55 H1.06 - CAVEOLIN¹ REGULATES GLUCOCORTICOID-MEDIATED INHIBITION OF KERATINOCYTE MIGRATION AND WOUND HEALING

I. Jozic¹, L. Liang¹, A. P. Sawaya¹, G. D. Glinos¹, I. Pastar¹, M. Tomic-Canic¹

¹ University Of Miami Miller School Of Medicine, Dermatology And Cutaneous Surgery, Wound Healing And Regenerative Medicine Research Program Miami, FL, USA

Angiogenesis (H2)

Upper Level - Room 1A

Moderators: Luisa DiPietro, PhD; Paul Liu, MD

4:15 H2.01 - SEQUESTRATION OF HYPOXYMIR MIR¹ IMPROVES KERATINOCYTE SURVIVAL AND MIGRATION IN MURINE ISCHEMIC WOUND

A. Biswas¹, S. Ghatak¹, J. Banerjee¹, D. Pal¹, S. C. Gnyawali¹, S. Khanna¹, S. Roy¹, C. K. Sen¹

¹ Ohio State University, Comprehensive Wound Center, Center For Regenerative Medicine And Cell Based Therapies, Department Of Surgery, Davis Heart And Lung Research Institute, The Ohio State University Wexner Medical Center, Columbus, OH, USA Columbus, OH, USA

4:25 H2.02 - VASCULAR MATURITY AND INTEGRITY IN DIABETIC SKIN WOUNDS

U. A. Okonkwo^{1,2}, L. Chen¹, B. Modilevsky¹, Y. Zhao¹, L. A. DiPietro¹

¹ University Of Illinois At Chicago, Center Of Wound Healing And Tissue Regeneration, College Of Dentistry Chicago, IL, USA

² University Of Illinois At Chicago, Department Of Microbiology And Immunology, College Of Medicine Chicago, IL, USA

4:35 H2.03 - RETOOLING LASER SPECKLE CONTRAST ANALYSIS ALGORITHM TO ENHANCE NON-INVASIVE HIGH RESOLUTION LASER SPECKLE IMAGING OF CUTANEOUS MICROCIRCULATION

S. Ghatak¹, S. C. Gnyawali¹, K. Blum¹, D. Pal¹, S. Khanna¹, S. Roy¹, C. Sen¹

¹ Ohio State University, Comprehensive Wound Center, Center For Regenerative Medicine And Cell Based Therapies, Department Of Surgery, Davis Heart And Lung Research Institute Columbus, OH, USA

4:45 H2.04 - THE ROLE OF NRF2 IN DIABETIC FOOT ULCER HEALING DURING HYPERBARIC OXYGEN THERAPY

V. Hsiao¹, S. Swartz¹, B. Johnston¹, L. Gould³, D. Ciombor², P. Liu²

¹ Warren Alpert Medical School, Providence, R, USA² Rhode Island Hospital, Department Of Plastic And Reconstructive Surgery Providence, RI, USA³ Kent County Memorial Hospital, Wound Recovery And Hyperbaric Medicine Center Warwick, RI, USA

4:55 H2.05 - NON VIRAL MEDIATED TRANSIENT EXPRESSION OF VEGF IN HUMAN ADMSCS ACCELERATES ANGIOGENESIS FOR CHRONIC WOUND HEALING.

A. AJIT¹, T. R. Santhoshkumar², L. K Krishnan¹

¹ Sree Chitra Tirunal Institute For Medical Sciences And Technology, Division Of Thrombosis Research, Department Of Applied Biology Thiruvananthapuram, Kerala, India² Rajiv Gandhi Centre For Biotechnology, Cancer Research Program

¹ Thiruvananthapuram, Kerala, India

5:05 H2.06 - SKIN REDNESS AND COLOUR: DISTINGUISHING BETWEEN CUTANEOUS ERYTHEMA AND PIGMENTATION IN HUMAN SKIN SCARRING USING QUANTITATIVE OBJECTIVE ASSESSMENT CORROBORATED BY IMMUNOHISTOCHEMICAL ANALYSIS

S. Ud-Din¹, P. Foden², M. Mazhari³, S. Al-Habba³, M. Baguneid⁴, A. Bayat¹

¹ University Of Manchester, Plastic And Reconstructive Surgery Research Manchester, GREATER MANCHESTER, United Kingdom² University Hospital Of South Manchester, Medical Statistics Manchester, GREATER MANCHESTER, United Kingdom³ Central Manchester University Hospitals NHS Foundation Trust, Adult Histopathology Manchester, GREATER MANCHESTER, United Kingdom⁴ University Hospital Of South Manchester, Vascular Surgery Manchester, GREATER MANCHESTER, United Kingdom

Bioengineering (H3) Upper Level - Room 1B

Moderators: Rivkah Isseroff, MD; Mithun Sinha, PhD

- 4:15 H3.01 - SOFT TISSUE REINFORCEMENT WITH ACELLULAR DERMAL MATRIX TO PROTECT IMPLANTED CARDIOVERTERS/DEFIBRILLATORS AND PACEMAKERS**
R. Rudolph¹, G. Curtis¹, R. Rudolph¹
¹ Scripps Clinic And UCSD, Plastic Surgery La Jolla, CA, USA
- 4:25 H3.02 - INCREASED RATE OF BIOINTEGRATION OF DERMACELL ACELLULAR DERMAL MATRIX THROUGH THE INCLUSION OF FENESTRATIONS**
P. S. Cottler¹, B. Ning², S. A. Seaman², J. Thuman³, L. S. Salopek¹, G. T. Rodeheaver¹, A. Pineros-Fernandez¹, S. Hu², C. A. Campbell¹
¹ University Of Virginia, Plastic Surgery Charlottesville, VIRGINIA, USA² University Of Virginia, Biomedical Engineering Charlottesville, VA, USA³ University Of Virginia, School Of Medicine Charlottesville, Virginia, USA
- 4:35 H3.03 - BIOMIMETIC COMBINATION GRAFT OF AMNION, FIBRIN AND PLGC FOR ACCELERATED BURN WOUND HEALING**
R. R¹, K. V¹, P. Varkey¹, L. K. Krishnan¹
¹ Sree Chitra Tirunal Institute For Medical Sciences & Technology, Division Of Thrombosis Research / Department Of Applied Biology, Division Of Dental Products / Department Of Biomaterial Science And Technology, Zumheilen / Ti-Med, Biomedical Technology Wing Trivandrum, Kerala, India
- 4:45 H3.04 - RE-ENGINEERING A FIBRONECTIN-DERIVED PEPTIDE FOR TOPICAL TREATMENT OF BURNS AND CHRONIC WOUNDS**
R. A. Clark¹, A. J. Singer¹, F. Lin¹, R. A. Clark¹
¹ NeoMatrix Therapeutics, Inc., Stony Brook, NY, USA
- 4:55 H3.05 - TARGETED DELIVERY OF A SMALL MOLECULE FOCAL ADHESION KINASE INHIBITOR VIA PULLULAN-COLLAGEN HYDROGEL SCAFFOLD FOR SCARLESS WOUND HEALING**
S. Kwon¹, K. Ma¹, D. Duscher¹, Y. Dong¹, M. Inayathullah², J. Rajadas², G. C. Gurtner¹
¹ Stanford University, Surgery Palo Alto, CA, USA² Stanford University, Advanced Drug Delivery Center Palo Alto, CA, USA
- 5:05 H3.06 - COMPLETE REMOVAL OF SDS NECESSARY FOR BIOLOGICALLY-DERIVED SCAFFOLD INTEGRATION IN MUSCLE WOUND REPAIR**
E. E. Friedrich¹, S. Niknam-Bienia¹, S. T. Lanier¹, G. Arenas¹, S. Hong¹, J. Wertheim¹, T. A. Mustoe¹, R. D. Galiano¹
¹ Northwestern University, Surgery Chicago, IL, USA

Burn Wounds (H4) Upper Level - Room 2

Moderators: Michael Schurr, MD; Heather Powell, PhD

- 4:15 H4.01 - QUANTITATIVE ANALYSIS OF BURN SCARS: SELECTING NON-INVASIVE INSTRUMENTS FOR CLINICAL EVALUATIONS**
M. E. Baumann¹, D. M. DeBruler², B. N. Blackstone², R. Coffey³, S. T. Boyce⁴, J. K. Bailey³, H. M. Powell^{1,2,4}
¹ Ohio State University, Department Of Biomedical Engineering Columbus, OH, USA² Ohio State University, Department Of Materials Science And Engineering Columbus, OH, USA³ Ohio State University, Wexner Medical Center Department Of Surgery Columbus, OH, USA⁴ Shriners Hospitals For Children, Research Department Cincinnati, OH, USA
- 4:25 H4.02 - IMMEDIATE TOPICAL APPLICATION OF MINOCYCLINE HYDROGEL DECREASES BURN WOUND NECROSIS AND REDUCES TISSUE BACTERIAL COUNTS**
K. Nuutila^{1,2}, M. Singh^{1,2}, E. Eriksson²
¹ Brigham And Women's Hospital, PLASTIC SURGERY Boston, MA, USA² Harvard School Of Medicine, Brookline, MA, USA
- 4:35 H4.03 - MAST CELL TRYPTASE INDUCTION OF POST-BURN FIBROSIS VIA PROTEASE-ACTIVATED RECEPTOR-2**
J. W. Jay^{1,3}, A. Prasai^{1,3}, A. El Ayadi^{1,2}, M. D. Wetzel³, D. N. Herndon^{1,2}, C. C. Finnerty^{1,2,3}
¹ University Of Texas Medical Branch, Surgery Galveston, TX, USA² Shriners Hospitals For Children, Galveston, TX, USA³ University Of Texas Medical Branch, Institute For Translational Science Galveston, TX, USA
- 4:45 H4.04 - EXPRESSION AND FUNCTION OF LAMININ-51¹ IN WOUND REEPITHELIALIZATION**
D. Castillo¹, T. Cui¹, S. Davis¹, J. Li¹
¹ University Of Miami, Dermatology & Cutaneous Surgery/School Of Medicine Miami, Florida, USA

4:55 H4.05 - EARLY APPLICATION OF PRESSURE GARMENTS REDUCES SCARRING FOLLOWING FULL-THICKNESS BURN INJURY

D. M. DeBruler¹, J. C. Zbinden², M. E. Baumann², B. N. Blackstone¹, M. M. Malara¹, D. M. Supp⁴, J. K. Bailey³, H. M. Powell^{1,2}

¹ Ohio State University, Department Of Materials Science And Engineering Columbus, OH, USA² Ohio State University, Department Of Biomedical Engineering Columbus, OH, USA³ Ohio State University, Wexner Medical Center Department Of Surgery Columbus, OH, USA⁴ Shriners Hospitals For Children, Department Of Research Cincinnati, OH, USA

5:05 H4.06 - BETA 2- ADRENORECEPTOR TRAFFICKING IS ALTERED IN POST-BURN DERMAL FIBROBLASTS

A. El Ayadi^{1,2}, A. Prasai³, Y. Wang¹, D. N. Herndon^{1,2}, C. C. Finnerty^{1,2,4}

¹ University Of Texas Medical Branch, Surgery Galveston, TX, USA² Shriners Hospitals For Children, Galveston, TX, USA³ University Of Texas Medical Branch, Neuroscience And Cell Biology Galveston, TX, USA⁴ University Of Texas Medical Branch, Institute For Translational Science Galveston, TX, USA

GRAND OPENING OF EXHIBITS/COCKTAIL RECEPTION

5:30 P.M. - 8:30 P.M. Ground Level - Hall B

WHS Exhibit Booth #1011

DAY 3: FRIDAY, APRIL 7, 2017

INDUSTRY-SUPPORTED BREAKFAST SYMPOSIA

7:30 A.M. - 9:00 A.M.

BREAK

9:00 A.M. - 9:15 A.M.

WHS SESSION I: REGENERATION

9:15 A.M. - 10:15 A.M. Upper Level - Room 6D

Moderators: Ardeshir Bayat, MB, BS, PhD; Daria Narmoneva, PhD

Speakers: Alejandro Ocampo, PhD; Alvaro Sagasti, PhD

The goal of repairing tissues with a regenerative phenotype in response to tissue injury has been an active area of scientific investigation. In mature vertebrates, resident stem cells participate in both tissue maintenance and regeneration after injury. These processes can be influenced by genetic mutations, epigenetic changes, and extrinsic factors. Neural degeneration and repair play important roles during injury response and regeneration. This session will focus on the current state-of-the-art science on enhancing stem cell function and modulating critical interactions between skin cells and sensory neurons for regenerative tissue repair.

BREAK

10:15 A.M. - 10:30 A.M.

WHS SESSION J: FIBROSIS AND SCAR

10:30 A.M. - 11:45 A.M. Upper Level - Room 6D

Moderators: Geoff Gurtner, MD, FACS; Thomas Mustoe, MD

Speakers: Geoff Gurtner, MD, FACS; Ester Middlekoop, PhD; Luc Teot, MD, PhD

Members of the Scar Club will highlight advances in the epidemiology, mechanistic studies and translational advances.

BREAK

11:30 A.M. - 11:45 A.M.

LUNCH WITH EXHIBITORS

11:45 A.M. – 2:15 P.M.

WHS Meet the Mentors/Job Fair (*non-accredited*)

12:00 P.M. - 2:00 P.M. Upper Level - Room 3

Moderators: Harvey Himel, MD, MPH, FACS; Mitch Sanders, PhD

Speakers: Vickie Driver, DPM; Jignesh Patel, MS; Tom Serena, MD, FACS

After a short presentation and panel discussion, participants break into round table discussions. Those interested in the WHS topics provided exchange views on issues at the forefront of wound healing research and training.

BREAK

2:00 P.M. - 2:15 P.M.

WHS SESSION K: CONCURRENT ORAL ABSTRACTS II (*non-accredited*)

2:15 P.M. - 3:15 P.M.

Oral presentations will feature the highest scoring abstracts submitted to the WHS.

Chronic Wounds (K1) Upper Level - Room 6D

Moderators: Anie Phillip, PhD; Lisa Tucker-Kellogg, PhD

- 2:15 K1.01 - END-STAGE RENAL DISEASE NEGATIVELY IMPACTS PHYSICAL QUALITY OF LIFE AND MAY PREDICT MAJOR AMPUTATION AND MORTALITY IN PATIENTS WITH DIABETIC FOOT COMPLICATIONS**
K. M. Rasovic^{4,5}, J. Ahn¹, J. LaFontaine³, L. Lavery³, D. Wukich¹, D. Wukich¹
¹ University Of Texas Southwestern Medical Center, Department Of Orthopaedic Surgery Dallas, TX, USA³ University Of Texas Southwestern Medical Center, Department of Plastic Surgery Dallas, TX, USA⁴ MedStar Georgetown University Hospital, Department Of Plastic Surgery Washington, DC, USA⁵ MedStar Washington Hospital Center, Division Of Podiatric Surgery Washington, DC, USA
- 2:25 K1.02 - COEXPRESSION NETWORK ANALYSIS OF TIME-COURSE TRANSCRIPTIONAL RESPONSE DURING CUTANEOUS WOUND HEALING IN A MURINE MODEL OF DIABETES**
S. Nassiri^{1,3}, E. A. Grice⁴, M. De Palma³, K. Pourrezaei¹, I. Zakeri²
¹ Drexel University, School Of Biomedical Engineering, Science, And Health Systems Philadelphia, PA, USA² Drexel University, Dornsife School Of Public Health Philadelphia, PA, USA³ Ecole Polytechnique Federale De Lausanne, School Of Life Sciences Lausanne, VD, Switzerland⁴ University Of Pennsylvania, Perelman School Of Medicine Philadelphia, PA, USA
- 2:35 K1.03 - TRANSLATIONAL VALUE OF MURINE MODELS OF DIABETIC WOUND HEALING**
G. Giatsidis¹, D. Sahin¹, T. Walters¹, H. Wang¹, D. P. Orgill¹
¹ Brigham And Women's Hospital, Plastic Surgery/Surgery Boston, MA, USA
- 2:45 K1.04 - COMPLEMENT ACTIVATION AND STAT4 EXPRESSION ARE ASSOCIATED WITH EARLY INFLAMMATION IN DIABETIC WOUNDS**
P. S. Cottler⁷, K. M. Cunnion^{1,2}, N. K. Krishna^{1,2}, H. K. Pallera¹, A. Pinerros-Fernandez⁷, M. G. Rivera¹, P. S. Hair¹, B. P. Lassiter², R. Huyck³, M. A. Clements^{4,5}, A. F. Hood^{4,5}, G. T. Rodeheaver⁷, A. D. Dobrian³, J. L. Nadler
¹ Eastern Virginia Medical School, Department Of Pediatrics Norfolk, VA, USA² Eastern Virginia Medical School, Department Of Microbiology And Molecular Cell Biology Norfolk, VA, USA³ Eastern Virginia Medical School, Department Of Physiological Sciences Norfolk, VA, USA⁴ Eastern Virginia Medical School, Department Of Dermatology Norfolk, VA, USA⁵ Eastern Virginia Medical School, Department Of Pathology Norfolk, VA, USA⁶ Eastern Virginia Medical School, Department Of Internal Medicine Norfolk, VA, USA⁷ University Of Virginia, Department Of Plastic Surgery Charlottesville, VA, Virgin Islands, U.S.
⁸ Eastern Virginia Medical School, Department Of Internal Medicine Norfolk, VA, USA
- 2:55 K1.05 - HYPERBARIC OXYGEN THERAPY EFFECTS ON CHRONIC WOUNDS: ANALYSIS OF PERFUSION USING INDOCYANINE GREEN ANGIOGRAPHY**
G. J. Chiou¹, S. Sorice¹, S. Meyer¹, G. Gurtner¹
¹ Stanford University, Plastic And Reconstructive Surgery Palo Alto, CA, USA

3:05 K1.06 - A NOVEL SYNTHETIC CYCLIC LIPOPEPTIDE CLP⁴ SHOWS POTENT ACTIVITY AGAINST MULTIPLE BACTERIAL ISOLATES FROM DIABETIC FOOT ULCERS

K. R. Min¹, B. Williams², R. Rayala², P. Cudic², R. S. Kirsner¹, D. Ajdic¹

¹ University Of Miami, Miller School Of Medicine, Dermatology & Cutaneous Surgery Miami, FL, USA² Florida Atlantic University, Department Of Chemistry And Biochemistry Jupiter, FL, USA

Chronic Wounds and Inflammation (K2)

Upper Level - Room 1A

Moderators: Sundeep Keswani, MD; Mitch Sanders, PhD

2:15 K2.01 - TOPICAL MEVASTATIN PROMOTES WOUND HEALING AND INHIBITS C-MYC VIA BLOCKING SYNTHESIS OF GLUCOCORTICOID RECEPTOR LIGANDS AND ACTIVATION OF LONG NON-CODING RNA GAS5

A. Sawaya¹, I. Pastar¹, O. Stojadinovic¹, S. C. Davis¹, R. Kirsner¹, M. Tomic-Canic¹

¹ University Of Miami Miller School Of Medicine, Wound Healing And Regenerative Medicine Research Program, Department Of Dermatology And Cutaneous Surgery Miami, Florida, USA

2:25 K2.02 - REGRANEX® RECRUITS CIRCULATING PERICYTES TO WOUNDS TO ACCELERATE WOUND HEALING

N. Kosaric¹, M. Rodrigues¹, P. Mittermiller¹, E. Roche², G. Gurtner¹

¹ Stanford University, Surgery Stanford, CA, USA² Smith And Nephew, Advanced Wound Management Fort Worth, TX, USA

2:35 K2.03 - CRITICAL ROLE OF CELL-MATRIX INTERACTIONS IN THE IMMUNOMODULATORY EFFECTS OF HUMAN AMNIOTIC MEMBRANE-DERIVED WOUND CARE

C. E. Witherel¹, T. Yu¹, M. Concannon¹, K. L. Spiller¹

¹ Drexel University, School Of Biomedical Engineering, Science And Health Systems Philadelphia, PA, USA

2:45 K2.04 - THE CHROMATIN REMODELING COMPLEX CHD4/NURD IS AN EPIGENETIC REGULATOR OF THE INFLAMMATORY RESPONSE IN DIABETIC WOUNDS

C. Zgheib¹, M. M. Hodges¹, J. Xu¹, J. Hu¹, K. W. Liechty¹

¹ Laboratory For Fetal And Regenerative Biology, Department Of Surgery, University Of Colorado-Denver School Of Medicine, Anschutz Medical Campus And Children's Hospital Colorado, Aurora, CO, USA

2:55 K2.05 - INHIBITION OF PHD2 BY LOCAL DELIVERY OF A NOVEL RNAI AGENT ACCELERATES WOUND HEALING IN DIABETIC MICE

B. H. Johnston¹, A. Dallas¹, H. Ilves¹, J. Barrera², K. Engel², A. J. White³, K. J. Mandell³, P. T. Hammond⁴, J. Mansbridge⁵, M. Rodrigues², G. C. Gurtner², B. H. Johnston¹

¹ SomaGenics, Inc., Santa Cruz, CA, USA² Stanford University, Medicine/Surgery Palo Alto, CA, USA³ LayerBio, Inc., Arlington, MA, USA⁴ Massachusetts Institute Of Technology, Chemical Engineering Cambridge, MA, USA⁵ Tecellact, Inc., San Diego, CA, USA

3:05 K2.06 - THE INFLUENCE OF COMORBID CONDITIONS ON THE PERFORMANCE OF ANNUAL COMPREHENSIVE FOOT EXAMINATIONS IN THE US POPULATION WITH DIABETES MELLITUS

T. A. Sando¹, R. Perera², J. Lu¹

¹ Virginia Commonwealth University, Division Of Epidemiology Richmond, VA, USA² Virginia Commonwealth University, Department Of Biostatistics Richmond, VA, USA

ECM. Fibrosis and Scarring (K3) Upper Level - Room 1B

Moderators: Susan Volk, VMD, PhD; Robert Dorschner, MD

2:15 K3.01 - MECHANISTIC TRIGGERS AND POTENTIAL THERAPEUTIC INTERVENTIONS FOR PATHOLOGICAL SCARRING IN TRAUMATIC SKIN WOUNDS

S. Nagaraja¹, L. Chen², J. Zhou², Y. Zhao², D. Fine², L. A. DiPietro², J. Reifman¹, A. Y. Mitrophanov¹

¹ DoD Biotechnology High Performance Computing Software Applications Institute, Telemedicine And Advanced Technology Research Center, U.S. Army Medical Research And Materiel Command Ft. Detrick, Maryland, USA² Center For Wound Healing And Tissue Regeneration, University Of Illinois At Chicago, College Of Dentistry Chicago, IL, USA

2:25 K3.02 - CAFFEINE INHIBITS MIGRATION WITHOUT AFFECTING FOCAL ADHESION SIZE IN DUPUYTREN'S FIBROBLASTS IN VITRO

J. C. Pantoja¹, A. Coles¹, M. Bryson¹, N. Alkadhem^{1,2}, M. B. Vaughan¹

¹ University Of Central Oklahoma, Department Of Biology Edmond, OK, USA² AL-Nahrain University, Biotechnology Research Center Baghdad, IRAQ, Iraq

- 2:35 K3.03 - CHARACTERIZING FETAL SKIN FIBROBLASTS USING COLLAGEN 1A1-GFP TRANSGENIC MICE**
 B. Wulff¹, O. Branson¹, M. Gardner¹, M. Freitas¹, T. Wilgus¹
¹ *Ohio State University, Columbus, OH, USA*
- 2:45 K3.04 - MOLECULAR SIGNALING IN DYSPIGMENTED HYPERTROPHIC SCARS: A KERATINOCYTE-MELANOCYTE CO-CULTURE EVALUATION**
 B. C. Carney^{1,2}, J. H. Chen^{2,3}, A. Alkhalil², L. T. Moffatt^{1,2}, J. W. Shupp³
¹ *Georgetown University School Of Medicine, Biochemistry And Molecular And Cellular Biology Washington, DC, USA*²
² *MedStar Health Research Institute, Firefighters' Burn And Surgical Research Laboratory Washington, DC, USA*³ *MedStar Washington Hospital Center, The Burn Center/Department Of Surgery Washington, DC, USA*
- 2:55 K3.05 - ANTIINFLAMMATORY CYTOKINE MEDIATED EXTRACELLULAR MATRIX REGULATION AND ANGIOGENESIS ATTENUATES FIBROSIS IN MULTIPLE ORGAN SYSTEMS**
 X. Wang¹, S. Balaji¹, P. Duann¹, H. Li¹, M. M. Fahrenholtz¹, M. Rae¹, W. Short¹, M. A. Chandramouli¹, D. Nguyen¹, P. L. Bollyky³, J. Cheng², S. G. Keswani¹
¹ *Baylor College Of Medicine, Surgery Houston, TX, USA*² *Baylor College Of Medicine, Medicine Houston, TX, USA*³ *Stanford University, Medicine Stanford, CA, USA*
- 3:05 K3.06 - CHARACTERIZATION OF FIBROBLAST SUBTYPES AND MACROPHAGES DURING DIFFERENT STAGES OF HYPERTROPHIC SCAR DEVELOPMENT**
 B. A. Kuehlmann¹, J. Padmanabhan¹, M. Rodrigues¹, G. C. Gurtner¹
¹ *Stanford University School Of Medicine, Department Of Surgery Palo Alto, CA, USA*

Infection and Biofilms (K4) Upper Level - Room 2

Moderators: Elizabeth Grice, PhD; Katherine Radek, PhD

- 2:15 K4.01 - INHIBITION OF BACTERIAL GROWTH BY HUMAN CRYOPRESERVED VIABLE AMNIOTIC MEMBRANE MEDIATED BY SOLUBLE ANTIMICROBIAL PEPTIDES**
 Y. Mao¹, T. Hoffman^{1,2}, A. Singh-Varma¹, A. Lerch², M. Moorman², A. Danilkovitch², J. Kohn¹
¹ *Rutgers University, New Jersey Center For Biomaterials Piscataway, NJ, USA*² *Osiris Therapeutics Inc., Columbia, MD, USA*
- 2:25 K4.02 - TREATING BIOFILM-ASSOCIATED INFECTION IN DIABETIC ULCERS BY SURGICAL DEBRIDEMENT, SIMULTANEOUS MESHED SKIN GRAFTS, AND NEGATIVE PRESSURE DRESSINGS**
 S. Han¹, S. Han¹
¹ *Korea University Guro Hospital, Department Of Plastic Surgery Seoul, SEOUL, South Korea*
- 2:35 K4.03 - TAUROLIDINE IN HIGH MOLECULAR WEIGHT HYALURONIC ACID PREVENTS FORMATION OF PSEUDOMONAS AERUGINOSA BIOFILM ON PIG SKIN EXPLANTS**
 G. Schultz¹, Q. Yang¹, D. Gibson¹, G. Schultz¹
¹ *University Of Florida, Institute For Wound Research Gainesville, FL, USA*
- 2:45 K4.04 - IMPACTS OF PATHOGEN COLONIZATION AND INFECTION ON A DERMAL REGENERATION MATRIX**
 K. W. Monger¹, L. T. Moffatt^{1,3}, B. C. Carney^{1,3}, J. W. Shupp²
¹ *MedStar Health Research Institute, Firefighters' Burn And Surgical Research Laboratory Washington, DC, USA*² *MedStar Washington Hospital Center, The Burn Center/Department Of Surgery Washington, DC, USA*³ *Georgetown University School Of Medicine, Biochemistry And Molecular And Cellular Biology Washington, DC, USA*
- 2:55 K4.05 - BIOFILM CERAMIDASES DISRUPT SKIN LIPID HOMEOSTASIS AND WOUND REPAIR**
 M. Sinha¹, S. Steiner¹, N. Ghosh¹, S. Khanna¹, D. Wijesinghe², D. Wozniak³, G. Gordillo¹, S. Roy¹, C. K. Sen¹
¹ *Ohio State University, Surgery Columbus, OH, USA*² *Virginia Commonwealth University, Richmond, VA, USA*³ *Ohio State University, Microbiology Columbus, OH, USA*
- 3:05 K4.06 - OVERCOMING ANTIBIOTIC RESISTANCE IN WOUND BIOFILM INFECTION**
 A. Das¹, S. Dixith¹, K. Ganesh Barki¹, M. Sinha¹, S. Steiner¹, Z. Polcyn¹, P. Ghatak¹, S. Khanna¹, E. Schwab¹, D. J. Wozniak², S. Roy¹, C. K. Sen¹
¹ *Ohio State University, Comprehensive Wound Center, Center For Regenerative Medicine And Cell Based Therapies, Department Of Surgery, Davis Heart And Lung Research Institute, The Ohio State University Wexner Medical Center Columbus, OH, USA*² *Ohio State University, Department Of Microbial Infection And Immunity, Department Of Microbiology, Center For Microbial Interface Biology, The Ohio State University Columbus, OH, USA*

BREAK

3:15 P.M. - 3:30 P.M.

WHS DAY3 GENERAL SESSION – SYSTEMATIC DISEASE & THE DELAY/IMPAIRMENT OF WOUND HEALING

3:30 P.M. – 4:30 P.M.

Upper Level - Ballroom 20 CD

Moderators: Brian Eliceiri, PhD; Rob Galiano, MD

Speaker: Ron Evans, PhD

This session will highlight research investigating the role of epidermal stem cells in skin homeostasis and repair. It will also discuss recent work demonstrating a new mechanism by which skin damage induces tumor formation.

BREAK

4:30 P.M. – 4:45 P.M.

WHS Session L: Wound Healing Foundation-3M Award Lecture

4:45 P.M. – 5:45 P.M.

Upper Level - Room 6D

Moderators: Laura Parnell, BS, MS, CWS; Ivan Jozic, PhD

Speakers Joshua Tam, PhD

This session will announce the 2016 WHSF-3M Fellowship winner and will feature a presentation on the research findings of the 2016 WHSF-3M Fellowship recipient, Joshua Tam, PhD.

BREAK

5:45 P.M. – 6:00 P.M.

WHS Business Meeting

5:45 P.M. – 6:45 P.M.

Upper Level - Room 6D

WHS Session M: RAPID FIRE POSTER TALKS

6:45 P.M. - 7:15 P.M.

Upper Level - Room 6D

Moderators: Harriet Hopf, MD

This session will highlight the highest scoring abstracts selected for poster presentations. Presenters will have one slide and two minutes to summarize novel research findings, then one minute to answer questions. This session will immediately precede the poster gala, where all poster presenters will be available to discuss their research.

6:48 M1.01 - INTRINSIC PHENOTYPIC DIFFERENCES BETWEEN ADULT AND FETAL DERMAL FIBROBLASTS IN RESPONSE TO MECHANICAL TENSION

M. Fahrenholtz¹, H. Li¹, M. A. Chandramouli¹, X. Wang¹, M. Rae¹, W. Short¹, P. Duann¹, K. Grande-Allen², P. L. Bollyky³, S. G. Keswani¹, S. Balaji¹

¹ Baylor College Of Medicine, Surgery Houston, TX, USA² Rice University, Houston, TX, USA³ Stanford University, Medicine-Infectious Disease Palo Alto, CA, USA

6:51 M1.02 - ADULT AND FETAL CARDIAC FIBROBLASTS STIMULATED WITH LIPOPOLYSACCHARIDE DEMONSTRATE DIFFERENTIAL EXPRESSION OF GENES REGULATING EXTRACELLULAR MATRIX

M. M. Hodges¹, C. Zgheib¹, J. Hu¹, J. Xu¹, K. W. Liechty¹

¹ University Of Colorado-Denver, Anschutz Medical Campus And Children's Hospital Colorado, Laboratory For Fetal And Regenerative Biology, Department Of Surgery Aurora, CO, USA

- 6:54 M1.03 - ADIPOSE-DERIVED STEM CELLS AND VASCULARIZED LYMPH NODE TRANSFERS SUCCESSFULLY TREAT MOUSE HINDLIMB SECONDARY LYMPHEDEMA THROUGH EARLY RE-CONNECTION OF THE LYMPHATIC SYSTEM AND LYMPHANGIOGENESIS**
S. Akita¹, S. Akita¹
¹ *Fukuoka, Plastic Surgery, Wound Repair And Regeneration Fukuoka, Fukuoka, Japan*
- 6:57 M1.04 - PHENOTYPIC CHARACTERISTICS OF CELLS ISOLATED FROM HUMAN AMNIOTIC AND CHORIONIC MEMBRANES**
A. Lerch¹, M. Moorman¹, T. Hoffman¹, J. Kuang¹, M. Sathyamoorthy¹, A. Danilkovitch¹
¹ *Osiris Therapeutics Inc., Columbia, MD, USA*
- 7:00 M1.05 - IMPROVED QUALITY OF LIFE AFTER TRANSTIBIAL AMPUTATION IN PATIENTS WITH DIABETES RELATED FOOT COMPLICATIONS**
D. K. Wukich¹, J. Ahn¹, K. M. Raspovic², J. LaFontaine³, L. Lavery³, D. Wukich¹
¹ *University Of Texas Southwestern Medical Center, Orthopaedic Surgery Dallas, TX, USA* ² *Georgetown University Medical Center, Plastic Surgery Washington, DC, USA* ³ *University Of Texas Southwestern Medical Center, Plastic Surgery Dallas, TX, USA*
- 7:03 M1.06 - COMPARISON BETWEEN HIGHLY AND EARLY HYDROPHILIC POLYURETHANE FOAM DRESSINGS IN THE MANAGEMENT OF SKIN GRAFT DONOR SITES IN DIABETIC PATIENTS**
Y. Lee¹, S. Han¹
¹ *Korea University Guro Hospital, Diabetic Wound Care Center Seoul, Seoul, South Korea*
- 7:06 M1.07 - GUIDELINES TO HARMONIZE WOUND MANAGEMENT ACROSS SETTINGS AND SPECIALTIES**
L. L. Bolton¹, S. Girolami², L. Corbett³, K. Couch⁴, L. Gould⁵, S. Zakhary⁶, C. Davey⁷, K. LaForet^{8,9}, K. Napier¹⁰, D. Merkle¹¹, L. Lavery¹², L. Cowan¹³, L. Bolton¹
¹ *Rutgers Medical University, Surgery Metuchen, NEW JERSEY, USA* ² *IHeal, Nursing Cincinnati, OH, USA* ³ *Hartford Hospital, Center For Wound Healing And Hyperbaric Medicine Hartford, CT, USA* ⁴ *George Washington University, Washington, DC, USA* ⁵ *George Washington University, Washington, DC, USA* ⁶ *George Washington University, Washington, DC, USA* ⁷ *George Washington University, Washington, DC, USA* ⁸ *George Washington University, Washington, DC, USA* ⁹ *George Washington University, Washington, DC, USA* ¹⁰ *George Washington University, Washington, DC, USA* ¹¹ *George Washington University, Washington, DC, USA* ¹² *George Washington University, Washington, DC, USA* ¹³ *George Washington University, Washington, DC, USA*
- 7:09 M1.08 - IPSC REPROGRAMMING RECOVERS CELLULAR FUNCTIONS OF DIABETIC FOOT ULCER FIBROBLASTS VIA MODULATION OF MICRORNA**
L. Liang¹, R. C. Stone¹, I. Jozic¹, O. Stojadinovic¹, I. Pastar¹, H. Ramirez¹, O. Kashpur^{2,3}, B. Gerami-Naini³, A. Smith³, R. S. Kirsner¹, A. Veves⁴, J. A. Garlick^{2,3}, M. Tomic-Canic¹
¹ *University Of Miami, Wound Healing And Regenerative Medicine Research Program, Department Of Dermatology And Cutaneous Surgery Miami, FL, USA* ² *Tufts University, Department Of Cell, Molecular, And Developmental Biology, Sackler School Of Graduate Biomedical Sciences Boston, MA, USA* ³ *Tufts University, Department Of Oral Diagnostic Sciences, School Of Dentistry, School Of Medicine, School Of Engineering Boston, MA, USA* ⁴ *Beth Israel Deaconess Medical Center, Boston, MA, USA*

WHS AND SAWC SPRING POSTER GALA/AWARDS

7:15 P.M. – 8:45 P.M.

Ground Level - Hall A

****POSTER PRESENTERS SHOULD ATTEND THIS ENTIRE EVENT****

DAY 4: SATURDAY, APRIL 8, 2017

INDUSTRY-SUPPORTED BREAKFAST SYMPOSIA

7:30 A.M. - 9:00 A.M.

BREAK

9:00 A.M. - 9:15 A.M.

WHS SESSION N: CONCURRENT ORAL ABSTRACTS III (non-accredited)

9:15 A.M. - 10:15 A.M.

Oral presentations will feature the highest scoring abstracts submitted to the WHS.

Scarring, ECM & Regeneration (N1)

Upper Level - Room 6D

Moderators: Ardeshir Bayat, MD; Ivan Jozic, PhD

- 9:15 N1.01 - GENOMIC AND EPIGENOMIC ANALYSIS OF ENGRAILED-1 FIBROBLASTS PREDICT FIBROGENIC ROLE IN SCARRING**
M. S. Hu^{1,2}, G. Walmsley¹, T. Leavitt¹, U. Litzemberger¹, C. Marshall¹, R. Sinha¹, Z. Maan¹, L. Barnes¹, D. Duscher¹, I. Weissman¹, G. Gurtner¹, H. Chang¹, H. P. Lorenz¹, M. Longaker¹
¹Stanford University, Surgery Palo Alto, CA, USA²University Of Hawaii, Surgery Honolulu, HI, USA
- 9:25 N1.02 - MECHANICAL FORCES AND INFLAMMATION REGULATE FIBROBLAST FUNCTIONAL DIVERSITY THAT IS PROPAGATED BY EXOSOMES**
M. Fahrenholtz¹, M. Rae¹, W. D. Short¹, H. Li¹, M. A. Chandramouli¹, X. Wang¹, D. Nguyen¹, P. Duann¹, K. Grande-Allen³, P. L. Bollyky², S. G. Keswani¹, S. Balaji¹
¹Baylor College Of Medicine, Surgery Houston, TX, USA²Stanford University, Medicine-Infectious Disease Palo Alto, CA, USA³Rice University, Bioengineering Houston, TX, USA
- 9:35 N1.03 - TARGETING TGF- β PATHWAY TO DECREASE EPITHELIAL TO MESENCHYMAL TRANSITION AND FIBROSIS IN SKIN CELLS**
S. Zhou¹, A. Bizet¹, A. Philip¹
¹McGill University, Surgery Montreal, QUEBEC, Canada
- 9:45 N1.04 - WNT3A-CONDITIONED MEDIA OF HUMAN BONE MARROW-DERIVED MESENCHYMAL STEM CELLS CONTAINS EXTRACELLULAR VESICLE-ASSOCIATED ACTIVITY IN SURROGATE ASSAYS OF DERMIS REPAIR**
J. D. McBride¹, L. Rodriguez-Menocal¹, A. Candanedo¹, E. Badiavas¹
¹University Of Miami, Department Of Dermatology And Cutaneous Surgery Miami, FL, USA
- 9:55 N1.05 - UNRAVELLING THE CROSSTALK BETWEEN CELL SHEETS OF HUMAN ADIPOSE STEM CELLS AND KERATINOCYTES**
M. T. Cerqueira^{1,2}, R. P. Pirraco^{1,2}, R. L. Reis^{1,2}, A. P. Marques^{1,2}
¹3B's Research Group - Biomaterials, Biodegradables And Biomimetics, University Of Minho, Guimares, GUIMARES, Portugal²ICVS/3B's - PT Government Associate Laboratory, Braga/Guimares, BRAGA/GUIMARES, Portugal
- 10:05 N1.06 - IMPEDANCE SPECTROSCOPY AS A NEW TOOL TO MONITOR RE-EPITHELIALIZATION IN WOUNDED RECONSTRUCTED HUMAN EPIDERMIS**
L. Engelhardt¹, F. Groeber-Becker², J. Hansmann¹, H. Walles^{1,2}
¹University Hospital Wuerzburg, Chair Of Tissue Engineering And Regenerative Medicine Wuerzburg, Bavaria, Germany²Fraunhofer Institute Of Interfacial Engineering And Biotechnology, Stuttgart, Baden-Wuerttemberg, Germany

Chronic Wounds (N2)

Upper Level - Room 1A

Moderators: Sue Gardner, PhD, RN; Ajdic Dragana, MD

- 9:15 N2.01 - INFLAMMATION AND NEUROPEPTIDES IN DIABETIC WOUND HEALING**
G. Theocharidis¹, D. Baltzis¹, S. Dangwal¹, A. Veves¹
¹Beth Israel Deaconess Medical Center, Harvard Medical School Boston, MA, USA
- 9:25 N2.02 - HEALING OF CHRONIC DIABETIC FOOT ULCERS WITH NATURAL HONEY: AN ALTERNATIVE PARADIGM IN WOUND HEALING**
H. Mohamed¹, B. Al Lenjawi¹
¹Weill Cornell Medical College-Qatar, Family Medicine Doha, QATAR, Qatar
- 9:35 N2.03 - A DUAL-CELL THERAPY FOR CHRONIC WOUNDS**
A. Aijaz¹, M. Teryek¹, R. Olabisi¹
¹Rutgers University, Piscataway, New Jersey, USA
- 9:45 N2.04 - ADVERSE OUTCOMES IN PATIENTS WITH PRESSURE ULCERS: CHANGING THE PARADIGM FOR PRESSURE ULCER PREVENTION**
R. A. Bryant¹, K. B. Daratha¹
¹Washington State University, College Of Nursing Spokane, WA, USA

9:55 N2.05 - USING A MATHEMATICAL MODEL WITH INDIVIDUAL PATIENT DATA TO QUANTIFY DIFFERENCES BETWEEN PATIENTS WITH DIABETIC FOOT ULCER

R. Schugart¹, R. Schugart¹

¹ *Western Kentucky University, Mathematics Bowling Green, KY, USA*

10:05 N2.06 - PRESSURE INJURY OF MATURE AND IMMATURE MUSCLE CELLS, STUDIED THROUGH THE USE OF 6-WELL AND 24-WELL DEVICES FOR MECHANICAL DEFORMATION IN VITRO

J. Jenkins¹, J. Fong¹, L. Tucker-Kellogg¹

¹ *Duke-NUS Medical School, Singapore, SG, Singapore*

Inflammation and Immunity (N3) Upper Level - Room 1B

Moderators: Corrie Gallant-Brehm, PhD; Joshua Tam, PhD

9:15 LATE BREAKING ABSTRACT

9:25 N3.02 - REGULATORY AND EFFECTOR T-CELLS POTENTIATE WOUND REPAIR BY REGULATING INFLAMMATION AND EXTRACELLULAR MATRIX

X. Wang¹, S. Balaji¹, M. Rae¹, K. Matatall², H. Li¹, V. G. Sunkari³, P. Duann¹, M. M. Fahrenholtz¹, M. Chandramouli¹, K. Y. King², M. Butte⁴, P. L. Bollyky³, S. G. Keswani¹

¹ *Baylor College Of Medicine, Surgery Houston, TX, USA* ² *Baylor College Of Medicine, Pediatrics-Infectious Disease Houston, TX, USA* ³ *Stanford University, Medicine Stanford, CA, USA* ⁴ *University Of California, Los Angeles, Pediatric Los Angeles, CA, USA*

9:35 N3.03 - SIGNIFICANT OVEREXPRESSION OF 5S RIBOSOMAL RNA AND U⁴ SMALL NUCLEAR RNA FOLLOWING INTRACELLULAR ATP DELIVERY IN A RABBIT WOUND MODEL

G. J. Kotwal², S. Chien^{1,2}, S. Chien^{1,2}

¹ *University Of Louisville, Surgery Louisville, KY, USA* ² *Noveratech LLC, Louisville, KY, USA*

9:45 LATE BREAKING ABSTRACT

Acute Wounds (N4) Upper Level - Room 2

Moderators: Marck Granick, MD; Mohamed Ibrahim, MD

9:15 N4.01 - Topical JAG1, a Notch Activator, Accelerates Closure of Splinted Cutaneous Excisional Wounds in K14-Notch2 Knockout Mice

K. Leibl², Z. Aburjania¹, B. F. Giertych², T. W. King¹

¹ *University Of Alabama At Birmingham, Plastic Surgery Birmingham, AL, USA* ² *University Of Wisconsin-Madison, Medicine Madison, WI, USA*

9:25 N4.02 - DELAYED WOUND HEALING IN A MOUSE MODEL OF BLEOMYCIN-INDUCED MULTI-ORGAN FIBROSIS: NEW APPROACH TO PRE-CLINICAL TESTING OF NEW THERAPIES FOR VENOUS LEG ULCERS

T. Wikramanayake¹, G. A. Rubio², G. D. Glinos¹, P. Hirt¹, I. Pastar¹, X. Xia², M. Tomic-Canic¹, S. Elliot², M. K. Glassberg^{2,3,4}

¹ *University Of Miami Miller School Of Medicine, Department Of Dermatology And Cutaneous Surgery Miami, FL, USA* ² *University Of Miami Miller School Of Medicine, Department Of Surgery Miami, FL, USA* ³ *University Of Miami Miller School Of Medicine, Department Of Medicine Miami, FL, USA* ⁴ *University Of Miami Miller School Of Medicine, Department Of Pediatrics Miami, FL, USA*

9:35 N4.03 - IL-27 PROMOTES INNATE IMMUNITY AND ANTIVIRAL COMPETENCE IN WOUNDS

J. Kwock¹, B. Yang¹, J. Maycock¹, M. McFadden³, J. Suwanpradid¹, L. Pontius¹, P. Hoang¹, S. Horner³, S. Abraham², A. MacLeod^{1,2}

¹ *Duke University Medical Center, Department Of Dermatology Durham, NC, USA* ² *Duke University Medical Center, Department Of Immunology Durham, NC, USA* ³ *Duke University Medical Center, Molecular Genetics And Microbiology Durham, NC, USA*

9:45 N4.04 - ECRG⁴ MEDIATES LEUKOCYTE RECRUITMENT AND WOUND HEALING IN A MURINE MODEL

R. A. Dorschner^{1,2}, J. Lee¹, T. Costantini¹, A. Baird¹, B. P. Eliceiri¹

¹ University Of California - San Diego, Division Of Trauma, Burns And Wounds, Department Of Surgery San Diego, CA, USA²
University Of California - San Diego, Department Of Dermatology San Diego, CA, USA

9:55 N4.05 - MACROPHAGE IN SITU PROLIFERATION, M2 POLARIZATION AND DIRECT COLLAGEN SYNTHESIS—A NEW PATHWAY FOR FASTER WOUND HEALING

H. Sarojini¹, S. Eichenberger¹, S. Chien¹

¹ University Of Louisville, Surgery Louisville, KY, USA

10:05 N4.06 - ENRICHMENT OF SKIN STEM CELL POOL BY INDUCIBLE HAIR FOLLICULOGENESIS

M. S. El Masry¹, S. Ghatak¹, N. S. Ahmed¹, S. C. Gnyawali¹, S. Roy¹, C. K. Sen¹, S. Khanna¹

¹ Ohio State University, Comprehensive Wound Center, CRMCBT, Department Of Surgery, DHLRI, Wexner Medical Center Columbus, OH, USA

BREAK

10:15 A.M. - 10:30 A.M.

WHS Day 4 General Session – Recent Advances in Wound Healing Research & Therapeutics

10:30 A.M. – 11:30 A.M. Upper Level - Ballroom 20 CD

Moderators: WHS President Elect-Elof Eriksson, MD, PhD; WHS President -Marjana Tomic-Canic, PhD

Speaker: Richard Gallo, MD, PhD

This general session will highlight the role of anti-microbial peptides in the skin that relate to skin immunity, health, disease, and basic cellular functions.

WHS MEETING ADJOURNS

11:30 A.M.

LUNCH WITH EXHIBITORS

11:45 A.M. – 2:15 P.M.

WHS POSTER PRESENTATIONS

Poster Gala/Awards Session is Friday, April 7, 2017 from 7:15 P.M. - 8:45 P.M., Ground Level - Hall A

ANGIOGENESIS

P.ANG01 - INDUCTION OF ANGIOGENIC PROPERTIES OF FIBROCYTES BY bFGF LEADING TO VASCULAR FORMATION DURING WOUND HEALING

Y. Akasaka^{1,4}, M. Nakamichi², C. Fujisawa³, K. Onishi², T. Okaneya², Y. Akishima-Fukasawa¹, N. Honma¹, T. Mikami¹

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P.ANG02 - FIBRONECTIN PEPTIDE, P1, ENHANCES GROWTH FACTOR DRIVEN ANGIOGENESIS

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P.ANG03 - INFLUENCE OF THE EXTRACELLULAR MATRIX PROTEIN TENASCIN-C ON MESENCHYMAL STEM CELL PARACRINE SIGNALING REGULATES WOUND HEALING AND ANGIOGENESIS.

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P.ANG04 - RETOOLING LASER SPECKLE CONTRAST ANALYSIS ALGORITHM TO ENHANCE NON-INVASIVE HIGH RESOLUTION LASER SPECKLE IMAGING OF CUTANEOUS MICROCIRCULATION

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ACUTE WOUNDS

P.AW02 - PAIN-RELIEVING CONTINUOUS-CLEANSING DRESSING ALLOWS TRAUMA PATIENTS TO AVOID SURGERY

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P.AW03 - DOES NEGATIVE PRESSURE WOUND THERAPY HAVE A ROLE IN WOUND PROPHYLAXIS IN CLEAN PRIMARILY CLOSED INCISIONS IN PATIENTS UNDERGOING ELECTIVE COLORECTAL SURGERY?

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P.AW04 - THE EFFECT OF A PRE- AND POSTOPERATIVE ORAL SUPPLEMENT OF ARGININE, ZINC AND VITAMIN C ON COLLAGEN SYNTHESIS IN SURGICAL INGUINAL HERNIA PATIENTS

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P.AW05 - PHOTOBIMODULATION THERAPY EFFECT ON EXCISIONAL WOUNDS OF STREPTOZOTOCIN-INDUCED DIABETIC RATS

J. R. De Castro², F. S. Pereira², G. C. Magliano², L. Chen¹, R. Y. Ballester², V. E. Arana-Chavez², L. A. DiPietro¹, A. Simoes²

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PA W06 - DIFFERENTIAL EXPRESSION OF GLYCOSYLATION RELATED GENES IN DIABETIC AND NON- DIABETIC WOUND HEALING

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BIOFILMS

PB IO02 - ULTRATHIN HYDROGEL DRESSINGS CONTAINING GALLIUM IONS AND SILVER NANOPARTICLES FOR THE ELIMINATION OF BIOFILMS

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P.BIO04 - UNUSUAL PRESENTATION OF VARICELLA ZOSTER IN A PATIENT WITH MYELOFIBROSIS AND POLYCYTHEMIA VERA TREATED WITH A JAK INHIBITOR

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P.BIO05 - ASSESSMENT OF IN VITRO DISRUPTION OF METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS BIOFILMS AND CYTOTOXICITY WITH COMMON SKIN CLEANSING AGENTS

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BURN WOUNDS

P.BW04 - DISCONCORDANCE BETWEEN HISTOLOGIC AND VISUAL ASSESSMENT OF TISSUE VIABILITY IN EXCISED BURN WOUND TISSUE

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P.BW05 - SMOOTHING SPLINES MIXED-EFFECTS MODELING OF LONGITUDINAL TRANSCRIPTIONAL RESPONSE DURING CUTANEOUS SCARIFICATION

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P.BW06 - PRECLINICAL PORCINE MAXILLOFACIAL MODEL TO STUDY LONG-TERM CONSEQUENCES OF BURN TRAUMA

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P.BW07 - SUPERPULSED 904 NM LASER-INDUCED PHOTOBIMODULATION ALLEVIATES PAIN AND PREVENTS NITROXIDATIVE STRESS IN FULL-THICKNESS BURN WOUND HEALING

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P.BW08 - THE RISE IN TGF- β 3 AND TRANSGLUTAMINASE-1 EXPRESSION IS THE KEY DIFFERENCE BETWEEN AN EPIDERMAL EQUIVALENT AND A SEMISYNTHETIC DRESSING DURING THE TREATMENT OF MID-PARTIAL THICKNESS BURNS IN HUMANS

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P.BW09 - UPREGULATION OF miR-429 REDUCES THE PRO-FIBROTIC RESPONSE IN AN IN-VITRO MODEL OF HUMAN DERMAL MYOFIBROBLAST DIFFERENTIATION

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CHRONIC WOUNDS

PB W01 - BROEMLAIN-BASED DEBRIDEMENT OF CONTAMINATED ISCHEMIC WOUNDS IN A PORCINE MODEL

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P.CW02 - Matrix Metalloproteinase Detection and Inhibition

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P.CW03 - THE ROLE OF FETAL BOVINE DERMIS COMBINED WITH THE USE OF NEGATIVE PRESSURE THERAPY FOR THE CLOSURE OF CHRONIC WOUNDS WITH EXPOSED TENDONS IN THE DIABETIC POPULATION.

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P.CW04 - TOTAL CONTACT CAST (TCC)FOR RECALCITRANT FULL THICKNESS WOUNDS ON PATIENTS WITH BELOW THE KNEE AMPUTATION.

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P.CW05 - Long non-coding RNA GAS5 promotes M¹ macrophage by upregulating STAT¹ through miR-222

J. Xu¹, J. Hu¹, C. Liechty¹, C. Zgheib¹, M. Hodges¹, K. W. Liechty¹

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P.CW06 - FUNCTIONAL GENE SET ANALYSIS PREDICTS NOVEL CELLULAR AND MOLECULAR IMMUNE MEDIATORS OF IMPAIRED DIABETIC WOUND HEALING

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P.CW07 - EARLY PREDICTION OF DEEP TISSUE INJURY USING DIFFUSE OPTICAL METHODS

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P.CW08 - FACILITATING HEALING OF FULL-THICKNESS WOUNDS USING A NOVEL HYDROGEL (MESHFILL)

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P.CW09 - LEG ULCERS IN THE EMERGENCY DEPARTMENT: A NATIONAL PERSPECTIVE.

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P.CW10 - A NOVEL PORCINE MODEL THAT REPLICATES INTRINSIC AGING GENERATES A DELAYED HEALING PHENOTYPE THAT IS REVERSIBLE WITH SURGICAL DEBRIDEMENT.

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P.CW11 - UTILITY OF A NEW CHRONIC WOUND MODEL IN DIABETIC MICE FOR EVALUATION OF WOUND CARE PRODUCTS

S. Dhall¹, T. Hoffman¹, J. Kuang¹, M. Moorman¹, A. Lerch¹, M. Sathyamoorthy¹, A. Danilkovitch¹

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P.CW13 - NIH FUNDING OPPORTUNITIES AND RESOURCES

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P.CW15 - CELL-SPECIFIC ROLE OF ANTIMICROBIAL PROTEIN PERFORIN-2 IN WOUND HEALING

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P.CW16 - DOSE- RESPONSE OF BIOFILM SECRETED PRODUCTS ON FIBROBLAST LATTICE HEIGHT AND CORRELATED CONTRACTION.

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P.CW17 - PREVENTING PRESSURE ULCERS: AN EDUCATIONAL APPROACH

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P.CW18 - CHALLENGE BEYOND THERAPEUTIC COMPRESSION-TIME TO BRIDGE THE GAP: A CASE STUDY OF VENOUS LEG ULCER MANAGEMENT

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(Rapid Fire Poster Talk M1.06)

P.CW19 - COMPARISON BETWEEN HIGHLY AND EARLY HYDROPHILIC POLYURETHANE FOAM DRESSINGS IN THE MANAGEMENT OF SKIN GRAFT DONOR SITES IN DIABETIC PATIENTS

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(Rapid Fire Poster Talk M1.07)

P.CW20 - GUIDELINES TO HARMONIZE WOUND MANAGEMENT ACROSS SETTINGS AND SPECIALTIES

L. L. Bolton¹, S. Girolami², L. Corbett³, K. Couch⁴, L. Gould⁵, S. Zakhary⁶, C. Davey⁷, K. LaForet^{8,9}, K. Napier¹⁰, D. Merkle¹¹, L. Lavery¹², L. Cowan¹³, L. Bolton¹

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(Rapid Fire Poster Talk M1.08)

P.CW21 - IPSC REPROGRAMMING RECOVERS CELLULAR FUNCTIONS OF DIABETIC FOOT ULCER FIBROBLASTS VIA MODULATION OF MICRORNA

L. Liang¹, R. C. Stone¹, I. Jozic¹, O. Stojadinovic¹, I. Pastar¹, H. Ramirez¹, O. Kashpur^{2,3}, B. Gerami-Naini³, A. Smith³, R. S. Kirsner¹, A. Veves⁴, J. A. Garlick^{2,3}, M. Tomic-Canic¹

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FIBROSIS & SCARRING

P.FS02 - ABLATIVE LASER PENETRATION DEPTH AS FUNCTION OF SCAR PROPERTIES

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P.FS04 - ACETYLCHOLINE REGULATES EXPRESSION OF LUMICAN AND COLLAGEN I IN KERATOCYTES IN QUIESCENT STATE AND AFTER TRANSITIONING TO FIBROBLASTS AND MYOFIBROBLASTS

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P.FS05 - THE ROLE OF ATYPICAL SODIUM CHANNEL NAX IN FIBROBLAST SIGNALING IN THE WOUND BED

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(Rapid Fire Poster Talk M1.01)

P.FS09 - INTRINSIC PHENOTYPIC DIFFERENCES BETWEEN ADULT AND FETAL DERMAL FIBROBLASTS IN RESPONSE TO MECHANICAL TENSION

M. Fahrenholtz¹, H. Li¹, M. A. Chandramouli¹, X. Wang¹, M. Rae¹, W. Short¹, P. Duann¹, K. Grande-Allen², P. L. Bollyky³, S. G. Keswani¹, S. Balaji¹

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(Rapid Fire Poster Talk M1.02)

P.FS10 - Adult and fetal cardiac fibroblasts stimulated with lipopolysaccharide demonstrate differential expression of genes regulating extracellular matrix

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NOVEL THERAPIES & OTHER APPROACHES

P.OTH02 - THE SODIUM CHANNEL NAX MEDIATES ENDOTHELIAL INFLAMMATION IN RESPONSE TO HIGH NaCl

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P.OTH03 - EVALUATION OF THE MIRRAGENTM ADVANCED WOUND CARE DRESSING IN A PARTIAL AND FULL THICKNESS PORCINE WOUND MODEL

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P.OTH04 - EUKARYOTIC CELL TREATMENT WITH ELECTROLYZED ACIDIC WATER MAINTAIN VIABILITY AND DIMINISHES SUPEROXIDE ANION LEVELS, MEANWHILE IMPAIRES BACTERIAL BIOFILM FORMATION

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P.OTH06 - PROTEOMIC AND CYTOKINE PROFILES FROM WOUND EXUDATE IN PERSONS WITH ADVANCED INJECTION-RELATED VENOUS DISEASE

B. Pieper¹, C. Viola¹, P. R. Burghardt¹, T. N. Templin¹, P. Stemmer¹

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P.OTH07 - GENETIC DEFICIENCIES AND SKIN WOUND HEALING

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P.OTH08 - IT IS MORE THAN JUST A HEALING: A CASE STUDY OF NECROTIC DIABETIC FOOT WOUND MANAGEMENT

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P.OTH09 - UNDERSTANDING EUROPEAN BIOCIDAL PRODUCTS COMMITTEE OPINION TOWARDS USE OF POLYHEXANIDE IN HUMAN HYGIENE PRODUCTS

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(Rapid Fire Poster Talk M1.05)

P.OTH10 - IMPROVED QUALITY OF LIFE AFTER TRANSTIBIAL AMPUTATION IN PATIENTS WITH DIABETES RELATED FOOT COMPLICATIONS

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STEM CELLS

P.SC01 - COMPARISON BETWEEN EFFECTS OF HUMAN UMBILICAL CORD BLOOD-DERIVED MESENCHYMAL STEM CELLS AND HEALTHY FIBROBLASTS ON WOUND HEALING ACTIVITY OF DIABETIC FIBROBLASTS

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P.SC04- VITAMIN E IMPROVES THE EFFICACY OF ADIPOSE DERIVED STEM CELLS FOR THE REPAIR OF CHEMICAL WOUNDS

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P.SC06 - HUMAN BONE MARROW-DERIVED MESENCHYMAL STROMAL CELLS ENGINEERED TO OVEREXPRESS PDGF-B USING CRISPR/CAS9/6AAV6-BASED TOOLS ACCELERATE WOUND HEALING IN THE MURINE DB/DB DIABETIC MODEL

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P.SC07 - PRECLINICAL EVALUATION OF REGENERATIVE TISSUE MATRICES IN A DELAYED HEALING DEEP TISSUE DEFECT WOUND HEALING MODEL.

N. Kabaria¹, P. J. Leamy¹, J. Lombardi¹, M. R. Hayzlett¹, H. Xu¹

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(Rapid Fire Poster Talk M1.03)

P.SC08 - ADIPOSE-DERIVED STEM CELLS AND VASCULARIZED LYMPH NODE TRANSFERS SUCCESSFULLY TREAT MOUSE HINDLIMB SECONDARY LYMPHEDEMA THROUGH EARLY RE-CONNECTION OF THE LYMPHATIC SYSTEM AND LYMPHANGIOGENESIS

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(Rapid Fire Poster Talk M1.04)

P.SC09 - PHENOTYPIC CHARACTERISTICS OF CELLS ISOLATED FROM HUMAN AMNIOTIC AND CHORIONIC MEMBRANES

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INDUSTRIAL RESEARCH & DEVELOPMENT

P.IRD01– RE-ENGINEERING A FIBRONECTIN-DERIVED PEPTIDE FOR TOPICAL TREATMENT OF BURNS AND CHRONIC WOUNDS

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P.IRD02 -INHIBITION OF BACTERIAL GROWTH BY HUMAN CRYOPRESERVED VIABLE AMNIOTIC MEMBRANE MEDIATED BY SOLUBLE ANTIMICROBIAL PEPTIDES

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LATE BREAKING ABSTRACTS

P.LB01 - UNDERSTANDING EUROPEAN BIOCIDAL PRODUCTS COMMITTEE OPINION TOWARDS USE OF POLYHEXANIDE IN HUMAN HYGIENE PRODUCTS

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P.LB02 - INFLAMMATORY HYPOXIA - A COMMON BARRIER TO OXYGEN DELIVERY TO TISSUES

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P.LB03 - DANCING WITH EPIDERMAL STEM CELLS AND ADIPOCYTES: A TALE OF TWO HEALING PARTNERS IN OBESITY WOUND

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P.LB04 - FIDGETIN LIKE 2 ACCELERATES EXCISIONAL WOUND HEALING IN PIGS

Brian O'Rourke, Ph.D.1; Rabab Charafeddine, Ph.D.1, Joshua Nosanchuk, M.D.1, David Sharp, Ph.D.1
1MicroCures, Inc.

P.LB05 - EFFICACY OF CHITOSAN-BASED DRESSING FOR CONTROL OF BLEEDING IN EXCISIONAL WOUNDS

Zahra Alikhassy MD1, Anne-Heloise Stricker-Krongrad1, Frank Lay1, Louis J. Bom1, Nicolette Matsangos1, Raul Sebastian MD1, Guy Marti MD2, John Harmon MD FACS1
1John Hopkins University School of Medicine, Baltimore, MD; 2Clinique St Jean, Melun, France

P.LB06 - TOPICAL APPLICATION OF MESENCHYMAL STEM CELL-DERIVED CONDITIONED MEDIA PREVENTS BURN PROGRESSION

Jason H. Chen*, MD, Stephen E. Epstein^, MD, Yuri Kudinov', PhD, Bonnie C. Carney§, BS, Mariana Vigliola Cruz*, MD, Lauren T. Moffatt§, PhD, Sergey Sikora', PhD, Jeffrey W. Shupp*, MD
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P.LB07 - USE OF AN ANTIMICROBIAL MICROFILM WOUND DRESSING IN SPONTANEOUS WOUNDS IN ANIMALS

Jonathan F. McNulty DVM, Ph.D.(1) and Michael J. Schurr M.D.(2)
School of Veterinary Medicine, University of Wisconsin-Madison, WI(1) and Mission Hospital, Asheville NC(2)

P.LB08 - ULTRATHIN DISSOLVABLE ANTIMICROBIAL WOUND DRESSING IS SAFE AND EFFECTIVE IN PATIENTS WITH COMPLEX CHRONIC WOUNDS

David Humphrey, MD(1), Michael J. Schurr, MD(2), William Shillinglaw MD(1)
1Mission Hospital, Asheville NC 2MAHEC Department of Surgery, Asheville, NC

P.LB09 - A CASE REVIEW SERIES OF NEGATIVE PRESSURE WOUND THERAPY WITH INSTILLATION AND DWELL TIME (NPWTI-D) USING HYPOCHLOROUS ACID (HOCL) VERSUS SODIUM HYPOCHLORITE (NAOCL) OR 0.9% NORMAL SALINE INSTILLATION IN COMPLEX INFECTED WOUNDS

R. Felte, K. Gallagher, L. Cardenas, M.Cipolle
ChristianaCare Health System

P.LB10 - UNIQUE CONTRACTILE PHENOTYPE OF FETAL FIBROBLASTS PREVENTS MYOFIBROBLAST DIFFERENTIATION

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* Presenting and senior author

P.LB11 - COMPARISON OF INTRADERMAL AND SUBCUTANEOUS TISSUE OXYGEN TENSION MONITOR TO DETECT FLAP COMPROMISE

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P.LB12 - RAPID DETECTION OF ACUTE VASCULAR OCCLUSION USING OXYGEN MONITORING IN A RAT MYOCUTANEOUS FLAP MODEL

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P.LB13 - NOVEL IMPLANTABLE OXYGEN BIOSENSORS FOR DETECTION OF VASCULAR PERFUSION AND ISCHEMIA

Mohamed M. Ibrahim, MD1, Ryan M. Schweller, PhD2, Mahmoud M. Mohammed, B.Eng1, David B. Powers, MD, DMD1, Bruce Klitzman, PhD1
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P.LB14 - EXPRESSION OF MARKERS FOR PERICYTES AND MYOFIBROBLASTS IN BLEOMYCIN-INDUCED DERMAL FIBROSIS: POTENTIAL ROLE OF NEUROPEPTIDE RECEPTORS IN A MOUSE MODEL FOR SCLERODERMA

Mohamed M. Ibrahim, MD1, Elizabeth McKinnon, MD2, Mary E. Sunday, MD, PhD2, Howard Levinson, MD, FACS1
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P.LB15 - NOVEL APPLICATION OF HIGH-THROUGHPUT CHROMATIN IMMUNOPRECIPITATION SEQUENCING IN FORMALIN FIXED PARAFFIN EMBEDDED DIABETIC FOOT ULCERS

Linsey E. Lindley, PhD1, Rivka C. Stone, M.D. PhD1, George Glinos1, Andrew Sawaya1,4, Irena Pastar, PhD1, and Marjana Tomic-Canic PhD 1, 2, 3, 4
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P.LB16 - AMBIENT TEMPERATURE VIABLE AMNION PROCESSED VIA NOVEL LYOPRESERVATION METHOD RETAINS PROPERTIES OF FRESH TISSUE

Sandeep Dhall, Malathi Sathyamoorthy, Jin-Qiang Kuang, Tyler Hoffman, Mathew Moorman, Anne Lerch, Michael Sinclair, and Alla Danilkovitch
Osiris Therapeutics Inc.

P.LB17 - A FIRST-IN-CLASS ANTIBIOFILM TOPICAL WOUND THERAPY TO TREAT AND PREVENT BIOFILM-RELATED INFECTIONS

Jeffery C. Rogers,1,2,3 Brooke Kawaguchi,2,3 Nicholas B. Taylor,2,3 Mattias B. Nielsen,2,3 Marissa A. Badham,2,3 Brittany R. Peterson,2,3 Seungah Goo,2,3 Ryan E. Looper,4,5 Paul R. Sebahar,4,5 Travis J. Haussener,4,5 Hari K. Reddy,4,5 Dustin L. Williams1,2,3,4,5
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P.LB18 - PLACENTAL CONNECTIVE TISSUE MATRIX FOR THE TREATMENT OF RECALCITRANT CHRONIC WOUNDS

Catherine J. Sinnott MD, Malack Hamade BS, Hassan Hamade BS, Thomas A. Davenport MD
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P.LB19 - THE USE OF DEHYDRATED HUMAN AMNIOTIC CHORIONIC MEMBRANE (DHACM) PRODUCTS FOR TISSUE MODULATION

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P.LB20 - CELL THERAPY OF BURNS: PRESENT AND FUTURE

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