

**WOUND HEALING SOCIETY
2026 PROGRAM
April 8–11, 2026 – Charlotte Convention Center, Charlotte, NC**

DAY 1: WEDNESDAY, APRIL 8, 2026

8:00 AM - 8:15 AM WHS WELCOME AND INTRODUCTION

Susan Volk VMD, PhD; *WHS President*

Kyle Quinn, PhD; Laura Swoboda, DNP, APNP, FNP-C, FNP-BC, CWOCNAP, WOCNF; *WHS Meeting Co-Chairs*

8:15 AM - 9:15AM WHS SESSION A: Thomas K. Hunt Honorary Lecture

The Thomas K. Hunt Endowed Lecture, established in 2013, honors the legacy of Dr. Thomas K. Hunt, a pioneering leader in wound healing research and a founding member of the Wound Healing Society. This annual lecture aims to inspire and educate wound healing researchers by highlighting innovations in related fields. Each year, the Wound Healing Foundation selects an honorary speaker, not limited to those directly involved in wound healing research but inclusive of investigators who demonstrate the ability to bridge scientific gaps and apply fundamental physiological principles to understand healing processes across multiple organ systems.

Moderators: Susan Volk VMD, PhD, DACVS; Robert Kirsner, MD

Biomaterials for Modeling and Therapeutic Delivery in Wound Healing and Repair

Jason A. Burdick, PhD

9:15 AM - 9:30 AM BREAK

9:30 AM – 10:30 AM WHS SESSION B: Frontiers in Regenerative Medicine

This session highlights cutting-edge advances at the intersection of regenerative biology and reconstructive surgery. Speakers will explore how emerging biomaterials, engineered tissues, and translational frameworks are reshaping the landscape of wound repair and restoration. From evolving paradigms in flap and graft selection to the latest innovations in regenerative medicine, presentations will trace how scientific breakthroughs are redefining clinical decision-making and expanding the possibilities for functional tissue regeneration.

Moderators: Heather Powell, PhD; Lisa Gould, MD; PhD

Clinical Decision-Making Pathways for Reconstructive Plastic Surgery Utilizing Flaps, Grafts and Scaffolds?

Abigail Chaffin, MD, FACS, CWSP, MAPWCA

Regenerative Medicine: Current Concepts & Changing Trends

Anthony J. Atala, MD, FACS

10:30 AM - 11:30 AM WHS SESSION C: Engineering Regeneration: Insights from Novel and Comparative Wound Healing Models

The ideal response to injury is regeneration, but mature tissues typically have limited capacity for true regeneration. A better understanding of the mechanisms by which tissue regeneration occurs, including how cell-ECM interactions and mechanosignaling influence this process, could lead to new approaches to promote regenerative healing. This session will highlight new work on engineered biomimetic model development and detailed characterization of ECM-driven responses of cells from regenerative species to uncover novel mechanistic information about tissue regeneration.

Moderators: Traci Wilgus, PhD & Athena Soulika, PhD

Reverse Engineering of Wound Healing: Lessons from Microtissue Models

Jeroen Eyckmans, PhD

Fibroblasts from Highly Regenerative Mammals Evade Biomechanical Cues to Drive Proliferation

Robyn Allen, VMD, PhD

11:30 AM - 11:45 AM **BREAK**

11:45 AM – 12:45 PM **WHS SESSION D: Cross-Talk at the Wound Interface: Microbiome and Immune Dynamics in Infection**

This session delves into the dynamic cross-talk between microbes and the immune system that determines whether wounds heal or persist in inflammation. Presentations will highlight how shifts in the wound microbiome reshape repair processes and how cytotoxic and regulatory immune cell responses can both defend against and drive tissue damage. Together, these talks by this collaborative team uncover emerging principles of immune–microbial balance with broad implications for infection control and chronic wound management.

Moderators: Paul Bollyky, MD, DPhil; Irena Pastar, PhD

Microbial-Host Interactions and Impaired Wound Healing

Elizabeth A. Grice, PhD

The Complex Role of CD8+ T Cells in Wound Healing and Chronic Cutaneous Leishmaniasis

Phillip Scott, PhD

12:45 PM – 2:00 P.M **WOUND SHARK INNOVATION COMPETITION LUNCH**

Moderators: Kyle Quinn, PhD; Vickie Driver, DPM; Mitchell Sanders, PhD; Carlos Zgheib, PhD
Laura Swoboda, DNP, APNP, FNP-C, FNP-BC, CWOCNAP, WOCNF; Josephine Luk, Neil Muchin

The Wound Healing Society is pleased to offer the Wound Shark Innovation Competition held during the 2025 WHS Annual meeting. The competition shows science and new product innovation. Submit your proposal details of groundbreaking science and new product innovations to be considered for presentation onsite at the meeting. The competition focuses on the latest innovations in advanced wound care. The judging criteria for the competition includes the novelty of innovation, development stage, clinical unmet need, market potential, pricing and reimbursement strategy, competitive advantage and competition, and the ability to attract an angel or VC investment.

2:15 PM – 3:15 PM **WHS SESSION E: Decoding the Inflammatory Microenvironment**

This session explores how inflammatory cues are precisely orchestrated to determine wound outcomes. Michel Enamorado, PhD will examine how neural and immune pathways intersect to coordinate inflammation and repair. Complementing this, the second presentation by Brett Shook, PhD, will discuss the dynamic cellular and molecular networks that drive immune activation and resolution after injury, highlighting how spatial and temporal signaling regulate myeloid cell function and how these processes go awry in impaired healing such as diabetes. Together, these talks will provide new insights into the complex regulatory mechanisms that define successful versus pathological healing.

Moderators: Georgios Theodoridis, PhD; Sashwati Roy, PhD

Neuroimmune Regulation of Wound Healing

Michel Enamorado, PhD

Cracking the Cellular Code: Heterogeneity and Crosstalk in Injury-Driven Inflammation

Brett Shook, PhD

3:15 PM – 4:15 PM **WHS SESSION F: Clocking in for Tissue Health: Timing Your Way to Better Barriers**

This session examines how nutritional status and circadian rhythms shape epithelial function and resilience. Presentations will explore how feeding–fasting cycles and the body’s internal clock influence skin physiology, repair, and metabolic balance, as well as how circadian disruption compromises mucosal barrier integrity, predisposing to inflammation and systemic disease. Together, these insights reveal shared mechanisms through which time and metabolism coordinate epithelial health across organ systems.

Moderators: Sasha H. Shafikhani, PhD; Chandan K. Sen, PhD

Skin Under the Influence of Feeding, Fasting, and the Circadian Clock

Bogi Anderson, MD

Circadian Clocks and Barrier Integrity: A Gateway to Inflammation and Disease"

Faraz Bishehsari, MD, PhD

4:00 PM – 4:15 PM **BREAK**

4:30 PM – 5:30 PM **WHS SESSION G: Forces that Scar: Mechanobiology Across Fibrotic Tissues**

Tissue injury activates a cascade of signaling pathways to recruit different cell types to orchestrate the healing response. However, excessive cell activation, inflammation, and accumulation of extracellular matrix can lead to inert, dysfunctional scar tissue as seen in pulmonary fibrosis, myocardial infarction, and hypertrophic scar formation. Mechanical tension plays a central role in orchestrating fibroproliferative responses following injury, particularly through mechanosensitive signaling pathways. In this session, investigators will discuss how mechanical signaling pathways can regulate fibrosis across various organ systems.

Moderators: Traci Wilgus, PhD; Dorothy M. Supp, PhD

Stiffness and Solid Stress in Liver Fibrosis

Rebecca G. Wells, MD

Matrix Mechanobiology Regulates Pro-Fibrotic Cardiac Fibroblast Activation

Adam J. Engler, PhD

6:00 PM–8:00 PM **SOCIAL EVENT FOR WHS MEMBERS**

Registered WHS members are invited to attend. M&T Event Deck at Kimpton Tryon Park

DAY 2: THURSDAY, APRIL 9, 2026

9:10 AM – 10:30 AM **SAWC SPRING OPENING CEREMONY AND KEYNOTE ADDRESS**

Beyond Gravity: How Spaceflight Transforms the Human Body

Kate Rubins, PhD

NASA astronaut and molecular biologist, who became the first person to sequence DNA in space.

10:30 AM – 11:00 AM **FIRST TO PODIUM PRESENTATIONS**

11:00 AM – 11:15 AM **BREAK**

11:15 AM – 12:15 PM WHS SESSION H: International Joint Session (ETRS/EWMA/WHS): A Global Dialogue on Inflammation in Wound Healing

Every year, this session brings together three sister societies (ETRS, EWMA and WHS) to focus on specific topic. This year this session will focus on inflammation as a central regulator of wound healing across molecular, cellular, and clinical contexts. Through complementary topics, the speakers will explore how dysregulated immune response shapes signaling pathways that control keratinocyte behavior, drive pathophysiology and influence damage-associated molecular pattern signaling (DAMP). Together, these presentations will highlight shared mechanisms and emerging concepts that provide novel insights and potential approaches to management, therapies and diagnostics targeting inflammation

Moderators: Susan Volk VMD, PhD; Marjana Tomic-Canic, PhD; Eduardo A. Silva, PhD

The Role of GEF-H1/RhoA Signaling in Inflammation-Induced Keratinocyte Responses

Katalin Szaszi, MD

Inflammation in Chronic Wounds: When Healing Becomes an Immune Disease – A European Perspective on Diagnosis and Management

Damien Pastor, MD

DAMP Signaling Pathways in Wound Healing

Qing Lin, MD, PhD

1:45 PM - 4:00 PM WHS SESSION I: YOUNG INVESTIGATORS SYMPOSIUM

Moderators: Susan Volk VMD, PhD; Kanhaiya Singh, PhD; Eduardo A. Silva, 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 ETRS meeting. Oral presentations will feature the top eight abstracts submitted to the WHS by young investigators as well as the winner of the ETRS Young Investigator Award.

1:45 I.01 Human Genome Editing Identifies Obesity-Associated Snps As Predictors Of Wound Chronicity

Sujit K. Mohanty, Kanhaiya Singh, Rajneesh Srivastava, J. Peter Rubin, Gayle M Gordillo, Sashwati Roy, Chandan K. Sen

Department of Surgery, University of Pittsburgh, Pittsburgh, PA, United States

2:00 I.02 Mitigating Biofilm-Induced Immune Suppression To Enhance DFU Healing

Sunil Kumar¹, Ankit Tandon¹, Miguel Jorge¹, Imran Khan¹, Bryce Hockman^{1, 2}, Kaitlyn Depinet², Beth Altenburger², Jaimee Haan², Gregory Westin^{1, 2}, Marjana Tomic-Canic³, Rivka Stone³, Mithun Sinha^{1, 2}

¹*Department of Surgery, Indiana University School of Medicine, Indianapolis, IN, United States*

²*Comprehensive Wound Center, Indiana University Health, Indianapolis, IN, United States* ³*Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, FL, United States*

2:15 I.03 Advancing Scarless Healing: A Gene Therapy Approach Based On Fetal Wound Repair

Rochelle Bitolas², Melissa Tran¹, Madeleine Landau³, Erin Brush⁴, Alyssa Ehrhardt², Katja Koll², Kendall Reitz², David Salven², David A. Brown⁴

¹ Stanford University, Palo Alto, CA, United States ²Duke University School of Medicine, Durham, NC, United States ³Tulane University School of Medicine, New Orleans, LA, United States ⁴Duke Department of Surgery, Durham, NC, United States

- 2:30 **I.04 Gunshot Wound-Associated Spinal Cord Injury Independently Predicts Complications After Pressure Injury Flap Reconstruction**
Katherine Kozlowski^{1, 4}, Marlynn P. Lopez^{1, 2}, Angelica Bartler^{1, 3}, Aneeq S. Chaudhry¹, Diana Griffin¹, Daniel A. Rabin^{1, 5}, Nicole Ontiveros¹, Tarifa Adam¹, Robert Galiano¹
¹Plastic Surgery Department, Northwestern University, Chicago, IL, United States ²Carle Illinois College of Medicine, Urbana, IL, United States ³Chicago Medical School at Rosalind Franklin University of Medicine and Science, North Chicago, IL, United States ⁴University at Buffalo Jacobs School of Medicine and Biomedical Sciences, Buffalo, NY, United States ⁵University of Illinois College of Medicine, Peoria, IL, United States
- 2:45 **I.05 A Novel Lytac Approach Targets IL-1 β and MMP-9 To Improve Wound Healing In Diabetes**
Leah Cooksey¹, Iaden Fenercioglu¹, Andrea Diaz², Petar Petrov², Tomás Sobrino³, Juan S. Ruiz², Holly N. Wilkinson¹, Matthew Hardman¹
¹University of Hull, UK, Hull, United Kingdom. ²Lincbiotech, Ourense, Spain. ³Health Research Institute of Santiago de Compostela, Santiago de Compostela, Spain.
- 3:00 **I.06 Biomechanical Strain Alters Exosome Cargo and Fibrotic Signaling in Human Dermal Fibroblasts**
Mary Elizabeth Guerra¹, Casey Baxter¹, Hui Li¹, Ling Yu¹, Paul Bollyky², Sundeep G. Keswani¹, Swathi Balaji¹
¹Baylor College of Medicine, Houston, TX, United States ²Stanford School of Medicine, Stanford, CA, United States
- 3:15 **I.07 Catheter-Based Interventions for Venous Leg Ulcers: Safety and Outcomes**
Pooja Shet^{1, 2}, Janmesh D. Patel^{1, 2}, Johanna Ghebrehiwet-Kuflo^{1, 2}, Anuj Budhiraja^{2,5}, Alisha Mehta^{2, 5}, Julianne Rizzo^{2,3}, Daniel J. Yoon², Caroline C. Liu^{2,3}, Daniel Link⁴, Sara Dahle^{1, 6}, Roslyn R. Isseroff^{2,1}
¹ Dermatology, UC Davis, Sacramento, CA, United States ² Dermatology, VA Northern California Healthcare System, Mather, CA, United States ³ UC Davis School of Medicine, Sacramento, CA, United States ⁴Vascular Surgery, VA Northern California Healthcare System, Sacramento, CA, United States ⁵California Northstate College of Medicine, Elk Grove, CA, United States ⁶Podiatry Section, VA Northern California Healthcare System, Mather, CA, United States
- 3:30 **I.08 The Impact of Preoperative TNF- α Inhibitor Exposure on Wound Healing and Postoperative Complications in Plastic and Reconstructive Surgery: A Propensity-Score Matched Analysis**
Aneeq S. Chaudhry^{1, 2}, Tarifa Adam¹, Daniel A. Rabin¹, Katherine Kozlowski¹, Shoshana Bar-Meir¹, Seok Jong Hong¹, Robert Galiano¹
¹Plastic and Reconstructive Surgery, Northwestern University Feinberg School of Medicine, Chicago, IL, United States ²Plastic and Reconstructive Surgery, FIU Herbert Wertheim College of Medicine, Miami, FL, United States
- 3:45 **I.09- ETRS WINNER**
Understanding Confined Functions of Neutrophils in the Pathophysiology of Diabetic Wound Healing
Jonathan Kessler, Ainur Kakpenova, Sandra Franz
Department of Dermatology, Venereology and Allergology, Medical Faculty, University Leipzig

4:00 PM – 4:15 PM **BREAK**

4:15 PM - 5:15 PM **WHS SESSION J: Measuring Wound Biochemistry**

This session will highlight emerging technologies that enable real-time monitoring of the biochemical and molecular environment within wounds. Presentations will explore advances in biosensing, molecular diagnostics, and analytical platforms that reveal key biomarkers of inflammation, infection, and tissue repair. By integrating these tools into clinical and research settings, the session aims to advance precision approaches for assessing

wound status and guiding therapeutic interventions.

Moderators: Manuela M. Martins-Green, PhD; Jordan R. Yaron, PhD

Molecular Wound Diagnostics at the Point-Of-Care

Simon Matoori, PhD

Biomechanics-Energy Metabolism Crosstalk as a Determinant of Scar Phenotype

Swathi Balaji, PhD

5:15 PM - 7:45 PM **GRAND OPENING OF EXHIBITS/COCKTAIL RECEPTION**

DAY 3: FRIDAY, APRIL 10, 2026

9:15 AM - 10:15 AM WHS GENERAL SESSION: Smart Biomaterials, Wound Dressings, and Drug Delivery Systems

This session will focus on the use of enabling nanotechnologies and smart biomaterials for regenerative engineering and tissue repair. Recent advances in the design of bio-inspired activatable dynamic biomaterials for modulation of the repair process and controlled delivery of genes, proteins, or metal organic frameworks to diabetic wounds will be discussed.

Moderators: Kaushal Rege, PhD; Daria A. Narmoneva, PhD

Pilfering Patient Pharmacies – Using Bioinspiration to Rewire Wound Repair

Ben Almquist, PhD

Regenerative Engineering and Biomaterials for Wound Care Management

Guillermo Ameer, DSc

10:15 AM - 10:30 AM BREAK

10:30 AM - 11:30 AM WHS SESSION K: CONCURRENT ORAL ABSTRACTS II

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

Aging & Senescence (K1)

Moderators: Ivan Jovic & Lindsay Kalan

10:30 K1.01 Spatial Transcriptomic Profiling Reveals IL1 β + Macrophages As Major Drivers Of Senescence In Chronic Wounds

Holly N. Wilkinson, Lauren Colborn, Nina Rocha, Alexander Johns, Leah Cooksey, Laden Fenercioglu, Matthew Hardman

University of Hull, Hull, United Kingdom

10:40 K1.02 Keratinocyte Integrin α 3 β 1 Links To Age-Related Wound Closure Delays And May Represent A Novel Target Of Therapy

Sanjana Dhulipalla¹, Pratik Vangal¹, Salima Lalani², Lei Wu¹, Whitney M. Longmate^{1, 2}

¹*Surgery, Albany Medical College, Albany, NY, United States* ²*Molecular & Cellular Physiology, Albany Medical College, Albany, NY, United States*

10:50 K1.03 Novel Methodology For Studying Cellular Senescence In Wound Healing using the p16-tdTomato Mouse Model

Qiaoling Wang, Magda Abdelkader, Kylie Tang, Maria Shvedova, Sydni Britton, Daniel S. Roh

Department of Surgery, Boston University Chobanian & Avedisian School of Medicine, Boston, MA, United States

11:00 K1.04 In Vivo Characterization of Skin Aging Through Label-Free Multiphoton Microscopy

Marcos R. Rodriguez¹, Alan Woessner², Kyle Quinn^{3,1}

¹*Biomedical Engineering, University of Arkansas, Fayetteville, AR, United States* ²*Arkansas Integrative Metabolic Research Center, University of Arkansas, Fayetteville, AR, United States* ³*Biomedical Engineering, Tufts University, Medford, MA, United States*

11:10 K1.05 From Dysfunction To Repair: Mitochondrial Rejuvenation Restores Healing In Aged Skin

Christian Gonzalez¹, Monica Rodriguez Silva², Ryan Lee¹, Ana Monzant¹, Emmy Dugi¹, Carlos Moraes², Marjana Tomic-Canic¹, Ivan Jozic¹

¹*Dermatology, University of Miami School of Medicine, Miami, FL, United States* ²*Neurology, University of Miami Miller School of Medicine, Miami, FL, United States*

11:20 K1.06 A Novel Estrogen Prevents Cellular Aging And Accelerates Tissue Repair Following Injury

Leah Cooksey¹, laden Fenercioglu¹, Tania Bernardes¹, alice fearne¹, Celine Gerard², Valerie Dion², Matthew Hardman¹, Holly N. Wilkinson¹

¹*University of Hull, UK, Hull, United Kingdom.* ²*Mithra Pharma, Liege, Belgium*

Acute Wounds (K2)

Moderators: John Gwin & Sasha Shafikhani

- 10:30 **K2.01 Innovative Peptide-Based Technology Provides Antibacterial Protection, Facilitating Rapid And Sustained Closure Of Surgical Incisions**
Trudy-Ann Grant¹, Hanna Abu-Zahra^{1, 2}, Lara Serhan^{1, 2}, Brunno F. Caetano¹, Bishnu P. Joshi¹, Nivedha Suresh¹, Ana Tellechea¹
¹GelMed, Lowell, MA, United States ²University of Massachusetts, Lowell, MA, United States
- 10:40 **K2.02 Sc-Repair: A Single-Cell Resource To Predict Communication During Acute Skin Wound Inflammation And Resolution**
Gabriel Batzli, Veronica Amuso, Sarah Kleb, Brett Shook
Biochemistry and Molecular Medicine, The George Washington University, Washington, DC, United States
- 10:50 **K2.03 CCL3 and LPS Combination Therapy Reduces Infection And Promotes Wound Healing In Diabetic Mice By Amplifying Proinflammatory Responses**
Rajalekshmy Padmakumari¹, Deepa Dehari¹, Getnet Tesfaw¹, Mazaher Gholipourmalekabadi², Athena M. Soulika¹, Sasha Shafikhani¹
¹Department of Dermatology, University of California Davis Health, Sacramento, CA, United States ²Cellular and Molecular Research Center, Iran University of Medical Sciences, Tehran, Iran (the Islamic Republic of)
- 11:00 **K2.04 GPR84 Signaling Regulates Adipocyte Function During Acute Skin Wound Healing**
Sarah Kleb, Kylie Voss, Paula Cooper, Brett Shook
George Washington University, Washington, DC, United States
- 11:10 **K2.05 Wound Outcomes Across Time After Lung Transplants: A Retrospective Cohort Study**
Diana Griffin, Robert Galiano, Amr Alwakeal
Northwestern University, Chicago, IL, United States
- 11:20 **K2.06 Effects of Glucagon-Like Peptide-1 (GLP-1) Agonists on Surgical Wound Healing: A Single Institution Study**
Jack C. Adams¹, Dominika Pullmann¹, Hannah Belostotsky¹, Tamara Mestvirishvili³, Ernest Chiu¹, Cheongeun Oh², Piul S. Rabbani^{1, 4}
¹Hansjörg Wyss Department of Plastic Surgery, NYU Grossman School of Medicine, New York, NY, United States ²Department of Population Health, NYU Grossman School of Medicine, New York, NY, United States ³Applied Bioinformatics Laboratory, NYU Grossman School of Medicine, New York, NY, United States ⁴Department of Cell Biology and Regenerative Medicine Institute, NYU Grossman School of Medicine, New York, NY, United States
-

Bioengineering/Biomaterials (K3)

Moderators: Heather Powell & Mithun Sinha

- 10:30 **K3.01 Smart Foams Enhance Healing: Vanillic Acid-Incorporated Polyurethane Shape Memory Polymer Foams For Hemorrhage And Infection Control**
Sevde N. Can¹, Ernest E. Obeng¹, Changling Du³, Serinella Serenelli², Mary B. Monroe¹
¹Biomedical Engineering, Texas A&M University, College station, TX, United States. ²Pathology, SUNY Upstate Medical University, Syracuse, NY, United States. ³Biomedical and Chemical Engineering, Syracuse University, Syracuse, NY, United States.
- 10:40 **K3.02 Silk Fibroin-Based Gel Reprograms Fibroblasts Toward A Regenerative Phenotype To Prevent Pressure Ulcer Formation**
Melisa Kafali, Maria Emilia Mora, Hailey Ruth Puklin, Adam J Homsy, Eric Lee, Hugh Ryan Sparks, Stacy Skopp, Kenneth W. Liechty, Carlos Zgheib
Department of Surgery, Laboratory for Fetal and Regenerative Biology, University of Arizona Tucson College of Medicine, Banner Children's at Diamond Children's Medical Center, Tucson, AZ, United States
- 10:50 **K3.03 Comparison Of Endothelial Cell Sources For Prevascularization Of Engineered Skin Substitutes For Wound Healing And Gene Therapy Applications**
Dorothy Supp^{1, 2}, Jennifer Hahn¹, Kelly A. Combs¹, Yi Cheng³, Kewa Gao^{4, 3}, Ping Zhou³, Aijun Wang³, Heather Powell^{5, 2}
¹Surgery, University of Cincinnati College of Medicine, Cincinnati, OH, United States ²Shriners Children's Ohio, Dayton, OH, United States ³UC Davis, Davis, CA, United States ⁴Arc Institute, Redwood City, CA, United States ⁵The Ohio State University, Columbus, OH, United States
- 11:00 **K3.04 Peptide-Based Biomimetic Matrix Eliminates Multidrug-Resistant Pseudomonas In Complex Wounds**
Ana Tellechea¹, Trudy-Ann Grant¹, Brunno Caetano¹, Bishnu P. Joshi¹, Nivedha Suresh¹, Daljit Kaur¹, Rebecca Salamone¹, Tarak Bakhda¹, Ankita Kshatriya¹, Manav Mehta¹, Lisa Gould²
¹Gel⁴Med, Lowell, MA, United States ²South Shore Health, South Weymouth, MA, United States
- 11:10 **K3.05 Engineering Extracellular Vesicles To Maximize Delivery Of Gene Editors To The Wound Bed Of Mouse And Human Models**
Wooil Choi, Matthew A. Heard, Casey K. Ho, Nivik Bharadwaj, Brian P. Eliceiri
Surgery, UC San Diego, San Diego, CA, United States
- 11:20 **K3.06 Lignin Composites Impact Fibroblast and Immune Cell Populations to Promote Diabetic Wound Healing**
Casey Baxter¹, Fateme Nazaryabrbekoh², Rami Choumar², Varun Akondy¹, Arin Kumar¹, Hui Li¹, Ling Yu¹, Mary Elizabeth Guerra¹, Jangwook P. Jung², Swathi Balaji¹
¹Surgery, Baylor College of Medicine, Houston, TX, United States ²Louisiana State University, Baton Rouge, LA, United States
-

Inflammation & Immunity (K4)

Moderators: Timothy Koh & Patrick Cottler

- 10:30 **K4.01 Opposing Functions of Dermal Antigen Presenting Cell Subsets in Wound Healing**
Jingbo Pang¹, Brandon E. Lukas², Yang Dai², Timothy J. Koh¹
¹Kinesiology & Nutrition, University of Illinois at Chicago, Chicago, IL, United States ²Department of Biomedical Engineering, University of Illinois at Chicago, Chicago, IL, United States
- 10:40 **K4.02 Wound Healing Response for Bi-layered Living Cellular Constructs Promotes M² Macrophage Phenotype**
Justin Avery¹, Hattie E. Hensley², Steven Zabroski³, Kelly A. Kimmerling¹, Katie Mowry¹
¹Research & Development, Organogenesis, Birmingham, AL, United States ²University of North Carolina at Chapel Hill, Chapel Hill, NC, United States ³Research & Development, Organogenesis, Canton, MA, United States
- 10:50 **K4.03 One-Carbon Metabolism Reprograms Macrophages In Inflammatory Environments To Drive Pro-Healing Lipid Metabolism And Efferocytosis**
Julia Drolet, Kentaro Takahashi, Jasmine R. Jackson, Ian Davis, Norifumi Urao
Pharmacology, SUNY Upstate Medical University, Syracuse, NY, United States
- 11:00 **K4.04 Ly6c+CD64+ Monocyte Macrophage Therapy Restores Acute Wound Healing Response in Diabetics**
Maria Gracia Mora Pinos, Katharina Fischer, Abdelrahman M. Alsharif, Lulejeta A. Latifi, Fidel Saenz, Pedro Mora Pinos, Amelia B. Knochel, Filiberto Quintero, Amy Skarsfeldt, Clark A Bonham, Olivia Renchar, Brodi Stevens, Dharshan Sivaraj, Hu
Surgery, University of Arizona, Tucson, AZ, United States
- 11:10 **K4.05 Hypothermic Storage of Amniotic Membranes Conserves Structure, Molecular Composition, and Fibroblast Responses In Vitro through the Retention of Native Characteristics**
Katrina Harmon¹, Kamari Marzette², Kelly A. Kimmerling¹, Katie Mowry¹
¹Research & Development, Organogenesis, Birmingham, AL, United States ²University of Alabama at Birmingham, Birmingham, AL, United States
- 11:20 **K4.06 Dysregulation of Epidermal Repair Mediator SerpinB3 in Psoriatic Disease**
Sepideh Nezhadi^{2, 1}, Lingchen Fu², Kaushal Rege^{2, 1}, Jordan R. Yaron^{2, 1}
¹School for Engineering of Matter, Transport, & Energy, Arizona State University, Tempe, AZ, United States ²Center for Biomaterials Innovation and Translation, ASU Biodesign Institute, Tempe, AZ, United States

11:30 AM – 2:00 PM **LUNCH WITH EXHIBITORS**

12:15 PM - 2:00 PM **WHS MEET THE MENTORS: Getting to the Bedside: How to Succeed in a Rapidly Evolving Research & Funding Environment** (non-accredited)

Moderators: WHS Young Professional Network

Panelists: Robert Kirsner, MD; Mitchell Sanders, PhD; Sundeep Keswani, MD; Ivan Jozic, PhD

This session will provide an informal, interactive forum for trainees and early-stage investigators to discuss a wide range of topical issues relevant to supporting and developing basic through clinical wound healing research.

2:00 PM - 2:15 PM **BREAK**

2:15 PM - 3:15 PM **WHS SESSION L: CONCURRENT ORAL ABSTRACTS I**

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

Cell Heterogeneity (L1)

Moderators: Matthew Hardman & Kanhaiya Singh

- 2:15 **L1.01 CXCR4 Agonist UCUF965 Restores Angiogenic And Immune Function Through Malat1-Driven Regenerative Pathways In Diabetic Wounds**
Maria Emilia Mora¹, Melisa Kafali¹, Katharina Fischer², Stacy Skopp¹, Kellen Chen², Geoffrey C. Gurtner², Carlos Zgheib^{1, 3}, Kenneth W. Liechty^{1, 3}
¹*Surgery, Laboratory for Fetal and Regenerative Biology, University of Arizona Tucson College of Medicine, Banner Children's at Diamond Children's Medical Center, Tucson, AZ, United States* ²*Surgery, University of Arizona, Tucson, AZ, United States* ³*Ceria Therapeutics, Inc., Aurora, CO, United States*
- 2:25 **L1.02 Scrnaseq Identifies S100A11 As A Diabetic Wound Healing Target**
Hamideh Afzali¹, Sanan Gueyikian², Michael E. Troka¹, Julia M. Ognibene⁴, Michael V. Gonzalez³, Dana Graves¹
¹*Department of Periodontics, School of Dental Medicine, University of Pennsylvania, Philadelphia, PA, United States* ²*College of Arts and Sciences, University of Pennsylvania, Philadelphia, PA, United States* ³*Center for Cytokine Storm Treatment & Laboratory, Department of Medicine, University of Pennsylvania, Philadelphia, PA, United States* ⁴*Department of Neuroscience, University of Pennsylvania, Philadelphia, PA, United States*
- 2:35 **L1.03 Investigation of The Control Loops Regulating the Protease Levels In Wound Healing**
Neeharicka Measala¹, Lisa Gould², Piyush Korla¹
¹*Chemical, Biological & Materials Engineering, University of South Florida, Tampa, FL, United States* ²*South Shore Hospital, South Weymouth, MA, United States*
- 2:45 **L1.04 Electric Field Modulation for Targeted Therapy in Diabetic Wounds**
Kevin Ruhnke¹, Nava P. Rijal¹, Jeremy Lesas², Andrei Kogan³, Daria Narmoneva¹
¹*Biomedical Engineering, University of Cincinnati, Cincinnati, OH, United States.* ²*Biomedical Engineering, University of Cincinnati, Cincinnati, OH, United States.* ³*Physics, University of Cincinnati, Cincinnati, OH, United States*
- 2:55 **L1.05 Transcription Factor Activity Driving Macrophage Dysregulation During Impaired Wound Healing in Diabetic Mice**
Brandon E. Lukas, Jingbo Pang, Timothy J. Koh, Yang Dai
University of Illinois Chicago, Chicago, IL, United States
- 2:05 **L1.06 WITHDRAWN**
-

Burn Wounds (L2)

Moderators: Harvey Himel & William Marston

- 2:15 **L2.01 A Multifunctional Minocycline-Loaded Agarose Hydrogel For The Management Of Burns**
Andrew Fielding, Sean Christy, Blake Smithson, Kristo Nuutila
USAISR, San Antonio, TX, United States
- 2:25 **L2.02 Evaluating Protoporphyrin Ix Fluorescence Guided Burn Depth Diagnosis And Surgical Excision**
Aiping Liu¹, Marien Ochoa¹, Bailey Donahue¹, Mary Junak¹, Angela Gibson¹, Brian Pogue²
¹*Surgery, University of Wisconsin-Madison, Madison, WI, United States* ²*Dartmouth University, Hanover, NH, United States*
- 2:35 **L2.03 5-Lipoxygenase Promotes Host Defense Against Pseudomonas Aeruginosa In Burn Wounds**
Qian Li^{1, 2}, Deepa Dehari¹, Rajalekshmy Padmakumari¹, Maliha Newsome³, Guadalupe Lugo³, Fariba Mohebichamkhorami^{1, 3}, Sasha Shafikhani¹, Athena M. Soulika^{1, 3}
¹*Dermatology, University of California, Davis, Davis, CA, United States* ²*Dermatology, The Third Hospital of Hebei Medical University, Shijiazhuang, Hebei, China.* ³*Shriners Children's Northern California, Sacramento, CA, United States*
- 2:45 **L2.04 Alpha-Terpineol Loaded Hydrogel Potentiates Mesenchymal Stem Cell-Mediated Wound Healing In Deep Burn Injuries**
Fatima Jameel¹, Maria Khalid³, Asmat Salim¹, Irfan Khan², Muhammad Raza Shah³
¹*Dr. Panjwani Center for Molecular Medicine and Drug Research, Karachi, Pakistan.* ²*Center for Regenerative Medicine and Stem Cell Research, The Aga Khan University, Karachi, Pakistan.* ³*HEJ Research Institute of Chemistry, ICCBS, University of Karachi, Karachi, Pakistan*
- 2:55 **L2.05 WITHDRAWN**
- 2:05 **L2.06 Defining Early Molecular And Cellular Responses To Burn Injury Using Spatial Transcriptomics**
Aiping Liu¹, Lingxin Cheng², Mary Junak¹, Bailey Donahue¹, Di Yan³, Christina Kendzioriski², Angela Gibson¹
¹*Surgery, University of Wisconsin-Madison, Madison, WI, United States* ²*Biostatistics and Medical Informatics, University of Wisconsin-Madison, Madison, WI, United States* ³*Dermatology, University of Wisconsin-Madison, Madison, WI, United States*
-

Engineering Innovations (L3)

Moderators: Kara Spiller & Daria Narmoneva

- 2:15 **L3.01 Development And Clinical Study Of A Wearable Single-Use Electrochemical Impedance Antibody Biosensor For Chronic Wound Monitoring**
Azrin Jamison¹, Md Salauddin Sk¹, Sydney Demers¹, Benjamin Schwartz¹, Logan Rush², Joel Kidd³, Robert Klein⁴, Jordon Gilmore¹
¹Bioengineering, Clemson, Taylors, SC, United States ²Biochemistry & Genetics, Clemson University, Clemson, SC, United States ³Prisma Health, Seneca, SC, United States ⁴Prisma Health, Greenville, SC, United States
- 2:25 **L3.02 Next-Generation Wound Histology Through Ai-Powered Virtual Staining**
Malavika Nidhi^{1, 2}, Alan Woessner², Marcos R. Rodriguez², Jake Jones², Jamie L. Burgess³, Jessica Gilman⁴, Irena Pastar³, Marjana Tomic-Canic³, Aristidis Veves⁴, Kyle Quinn^{1, 2}
¹Biomedical Engineering, Tufts University, Fayetteville, AR, United States ²Biomedical Engineering, University of Arkansas, Fayetteville, AR, United States ³Dr. Phillip Frost Department of Dermatology & Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, FL, United States ⁴Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, United States
- 2:35 **L3.03 A Novel, Self-Powered Magnetoelastic Hydrogel Bandage For Accelerated Wound Healing Via Biomimetic Electrical Stimulation**
Kanisk Rai, Sujit Silas Armstrong, Vasav Shah
Bioengineering, University of California, Los Angeles, Los Angeles, CA, United States
- 2:45 **L3.04 Inflammation-Related Gene Biomarker For Personalized Diabetic Foot Ulcer Therapy: Optimization And Validation**
Juan Cortes-Troncoso^{1, 4}, Karen Jimenez¹, Yveeka Marcellus¹, Aliyah Stephens¹, Alisha Oropallo^{2, 4}, David S. Margolis^{3, 4}, Kara L. Spiller^{1, 4}
¹School of Biomedical Engineering, Science and Health Systems, Drexel University, Philadelphia, PA, United States ²Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, New York, NY, United States ³Department of Dermatology and Department of Biostatistics and Epidemiology, University of Pennsylvania, Philadelphia, PA, United States ⁴Diabetic Foot Consortium, NIDDK, NIH, Bethesda, MD, United States
- 2:55 **L3.05 Strain-Programmed Bioadhesive Patch For Enhanced Diabetic Wound Healing**
Zhuqing Li
Surgery, Beth Israel Deaconess Medical Center, Boston, MA, United States
- 2:05 **L3.06 Functional Osteopontin Peptide Delivery Using Bioengineered Provisional Matrix Improves Diabetic Wound Healing**
Charvi Seeta¹, Tran Ho², Olivia Clark², Blake Hollenbeck³, Eda Kurtulmus², Jessica Replogle³, Georg Weber⁴, Daria Narmoneva²
¹Medical Sciences, College of Medicine, University of Cincinnati, Mason, OH, United States ²Biomedical Engineering, College of Engineering & Applied Sciences, University of Cincinnati, Cincinnati, OH, United States ³Summit Country Day High School, Cincinnati, OH, United States ⁴Cancer Center, College of Pharmacy, University of Cincinnati, Cincinnati, OH, United States
-

Pharmacology (L4)

Moderators: Helen Zomer & Kaushal Rege, PhD

- 2:15 **L4.01 Topical CCL3 Is Well-Tolerated And Improves Liver Function In Diabetic Mice: Evidence From A 14-Day Toxicity Study**
Deepa Dehari, Rajalekshmy Padmakumari, Getnet Tesfaw, Athena Soulika, Sasha Shafikhani
Dermatology, University of California Davis, Sacramento, CA, United States
- 2:25 **L4.02 Comparative Effectiveness Of Antidiabetic Medications On Wound Healing In Diabetes-Related Foot Ulcer Patients: A Trinetx Analysis**
Kennedy Couch¹, Amar Ifetiha¹, Matthew Sigel¹, Joseph Petro¹, Kate Szymanski²
¹*Medicine, University of Toledo College of Medicine and Life Sciences, Toledo, OH, United States*
²*Family Medicine and Geriatrics, University of Toledo College of Medicine and Life Sciences, Toledo, OH, United States*
- 2:35 **L4.03 Baricitinib in the Treatment of Adults with Pyoderma Gangrenosum: Clinical and Translational Insights**
Alexandra Shinde¹, Morgan Vague¹, Sharon Choe², Shannon Throckmorton¹, Alex Ortega-Loayza¹
¹*Dermatology, Oregon Health & Science Univeristy, Portland, OR, United States* ²*Providence Portland Medical Center, Portland, OR, United States*
- 2:45 **L4.04 Real-World Evidence on Nitric Oxide Delivering Foam for Pressure Ulcer Healing in Skilled Nursing Facilities: Addressing the Evidence Gap**
Windy Cole¹, Lisa Gould², Zweli Tunyiswa³, Rhonda Sullivan⁴, Mervin Low⁵
¹*Kent State University, Streetsboro, OH, United States* ²*South Shore Health Center for Wound Healing, Weymouth, MA, United States* ³*Open Wound Research, Puyallup, WA, United States* ⁴*Bruin Biometrics, Atlanta, GA, United States* ⁵*Mervin Low, MD, New Port Beach, CA, United States*
- 2:55 **L4.05 Histamine Receptor Agonists Differentially Modulate Wound Closure And Tissue Repair In Acute And Diabetic, Obese Mice**
Sudhakar Godeshala, Jordan R. Yaron, Shubham Pallod, Trishita Chowdhury, Vanshika Singh, Harsh G. Sant, Kaushal Rege
Center for Biomaterials Innovation and Translation (CBIT), Arizona State University, Tempe, AZ, United States
- 2:05 **L4.06 Pharmacokinetics Of Topically Applied Timolol For Chronic Wounds: A Prospective Pilot Study**
Anthony Gallegos¹, Janmesh D. Patel^{1,2}, Pooja Shet^{1,2}, Johanna Ghebrehiwet-Kuflo^{1,2}, Mirabel Dafinone^{1,2}, Pallas Lim², Neda Afshar², Chuong Nguyen¹, Kaitlyn West², Sara Dahle^{3,1}, Rivkah Isseroff^{1,2}
¹*Dermatology, University of California Davis, Sacramento, CA, United States* ²*Dermatology Service, VA Northern California Health Care System, Mather, CA, United States* ³*Podiatry Section, VA Northern California Health Care System, Mather, CA, United States*

3:15 PM - 3:30 PM **BREAK**

3:30 PM - 4:30 PM **WHS SESSION M: Extracellular Vesicles**

Extracellular vesicles (EVs) have emerged as potent mediators of intercellular communication and tissue repair. This session will highlight cutting-edge research on the molecular and therapeutic roles of EVs in wound healing, from their involvement in inflammation and immune modulation to their development as engineered regenerative therapeutics. Speakers will discuss recent discoveries on how EVs orchestrate repair processes in chronic and acute wounds, offering new perspectives for translational applications in regenerative medicine.

Moderators: Matthew Hardman, PhD; Helena D. Zomer, DVM, PhD

Sugar-Coated Silence in DEAD Wounds

Subhadip Ghatak, PhD

Development of Engineered Vesicle Therapeutics in Tissue Repair

Brian Eliceiri, PhD

Exosomes in Wound Therapy: Rekindling an Old Inflammation-Action

Piul Rabbani, PhD

4:30 PM - 4:45 PM **BREAK**

4:45 PM – 5:45 PM **WHS SESSION N: Awardee Spotlight**

This session will highlight the work of individuals that have recently received awards for their work.

Moderators: Susan Volk, VMD, PhD; Kyle Quinn, PhD; Laura Swoboda, DNP, APNP, FNP-C, FNP-BC, CWOCNAP, WOCNF

WHS Lifetime Achievement Award Winner: Manuela M. Martins-Green, PhD

35 Years of a Career in Science: The professional adventure of a lifetime

WHS Research Grant Recipient: Jelena Marjanovic

TITLE TBD

Anita Roberts Award Winner: Dylan Tinney

Re-epithelialization in a Yorkshire Pig Full Thickness Excisional Wound Model is Associated with Keratinocyte Activation, Oxidative Stress, and Biomacromolecule Oxidation

5:45 PM - 6:00 PM **BREAK**

6:00 PM - 6:30 PM **WHS SESSION O: RAPID FIRE POSTER PRESENTATIONS**

Moderators: Irena Pastar, PhD; Piul Rabbani, PhD

This session will highlight the highest scoring abstracts selected for poster presentations. Eight short 'rapid-fire' poster talks will be featured. 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.

6:00 **O1.01 Negative Pressure Wound Therapy with Instillation and Dwell for Complex Spinal Wounds with Implants: A Scoping Review and Institutional Case**

Aneeq S. Chaudhry, Katherine Kozlowski, Daniel A. Rabin, Shoshana Bar-Meir, Nicole Ontiveros, Tiffany Kim, Seok Jong Hong, Robert Galiano

Plastic and Reconstructive Surgery, Northwestern University Feinberg School of Medicine, Chicago, IL, United States

6:03 **O1.02 ELU42 Promotes Regenerative Tissue Repair Via Stem Cell Recruitment And Wnt Pathway Modulation**

Daniel Holsworth, Sarika Saraswati, John Delgado, Michael Stone

Eluciderm Inc, San Diego, CA, United States

6:06 **O1.03 Patient Genomics Explain Presence Of Common Chronic Wound Pathogens Using A Novel Analytical Approach**

Jacob Ancira^{1, 2}, Khalid Omeir¹, Rebecca Gabriliska⁴, Craig Tipton², Clint Miller³, Joseph Wolcott³, Todd

D. Little¹, Caleb Phillips¹

¹Texas Tech University, Lubbock, TX, United States ²MicrogenDX, Lubbock, TX, United States

³Southwest Regional Wound Care Center, Lubbock, TX, United States ⁴Texas Tech Health Sciences Center, Lubbock, TX, United States

- 6:09 **O1.04 Changes In Wound Bacteria Undergoing Weekly Sharp Debridement Among Individuals With Chronic Venous Leg Ulcers**
Jung Lyun Kim^{1,2}, Joyce Stechmiller², Michael T. Weaver², Magali Rezende de Carvalho², Debra E. Lyon²
¹Chungnam National University College of Nursing, Daejeon, Korea (the Republic of). ²College of Nursing, University of Florida, Gainesville, FL, United States
- 6:11 **O1.05 ELU535: A Novel Bacteriostatic, Topical, Spray-On, Small Molecule Wnt Pathway Modulator That Stimulates Endogenous Regeneration Of Elastic Cartilage In New Zealand White Rabbit Ears**
Daniel Holsworth, Sarika Saraswati, John Delgado, Michael Stone
Eluciderm Inc, San Diego , CA, United States
- 6:14 **O1.06 Periwound Pigmentation In Lower-Extremity Scleroderma Ulcers Across Skin Tones**
Vanya Shivashankar, Jose Jaller
Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery, University of Miami Leonard M. Miller School of Medicine, Miami, FL, United States
- 6:17 **O1.07 Relationship Between Tewl And Stratum Corneum Protein Recovery In Adhesive-Induced Injury**
Mengyuan Guo^{1, 2}, Gabriela Cosenza^{1, 3}, Samuel Ainsworth¹, Madeline Hakala^{1, 4}, Kim Nguyen^{1, 5}, Tim Houser⁶, Tage Carlson¹, Abram D. Janis¹
¹Hollister Incorporated, Libertyville, IL, United States ²Master of Biotechnology Program, Northwestern University, Evanston, IL, United States ³Department of Chemical and Biological Engineering, McCormick School of Engineering, Northwestern University, Evanston, IL, United States ⁴Department of Bioinformatics, Loyola University Chicago, Chicago, IL, United States ⁵Industrial Engineering, Northwestern University, Evanston, IL, United States ⁶Dermico LLC, Broomall, PA, United States
- 6:20 **O1.08 Single-Cell Rna-Seq Identifies Sensecent Fibroblasts Driving Chondrogenic Ecm Abnormalities In Keloid Scars**
Sydni Britton, Magda Abdelkader, Qiaoling Wang, Maria Shvedova, Kylie Tang, Daniel S. Roh
Plastic and Reconstructive Surgery, Boston Medical Center, Boston, MA, United States

6:30 PM – 7:00 PM **WHS BUSINESS MEETING**

7:00 PM – 7:15 PM **WHS AWARD SESSION**

7:00 PM – 8:30 PM **WHS AND SAWC SPRING POSTER GALA/AWARDS**

DAY 4: SATURDAY, APRIL 11, 2026

9:15 AM – 10:15 AM WHS GENERAL SESSION: From Omics to Outcomes

In this session, Dr. Aristidis Veves will explore how cutting-edge omics technologies are unlocking the cellular and molecular signatures of healing versus non-healing in diabetic foot ulcers. His work sheds light on specific cell populations that may determine outcomes in this challenging patient population. Building on that foundation, Dr. Rob Fraser will take us from insight to impact by showing how clinical innovations are being scaled into commercial platforms that drive improved outcomes in wound care. Together, the talks will illustrate the full pathway from molecular discovery through translational development and real-world adoption.

Moderators: Swathi Balaji, PhD; Ivan Jozic, PhD

Omic Studies for the Diabetic Foot Ulceration

Aristidis Veves, MD, DSc

Bridging the Gap: Scaling Innovation from Clinical Insight to Commercialization

Rob Fraser, MN, RN, NSWOC, WOCC(C)

10:15 AM - 10:30 AM BREAK

10:30 AM - 11:30 AM WHS SESSION P: CONCURRENT ORAL ABSTRACTS III (non-accredited)

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

Novel Therapies (P1)

Moderators: Manuela Martins-Green & Matt Wietecha

10:30 P1.01 TRPM2 Inhibition Attenuates Inflammatory Responses In Macrophages And Endothelial Cells

Rima Patel¹, Liping Zhang¹, Songmei Meng¹, Vijay Boda², Wei Li², Junwang Xu¹

¹Physiology, UTHSC, Memphis, TN, United States ²Pharmaceutical Sciences, UTHSC, Memphis, TN, United States

10:40 P1.02 WITHDRAWN

10:50 P1.03 Targeting Diabetic Skin Flap Viability With Multipotent Stromal Cell Secretome

Ankit Juneja¹, Dominika Pullmann¹, Priyanka Pulvender¹, Aditya Arkalgud¹, Dianny Almanzar¹, Sydney Hanson¹, Piul S. Rabbani^{1, 2}

¹Hansjörg Wyss Department of Plastic Surgery, NYU Grossman School of Medicine, New York, NY, United States ². Department of Cell Biology and Regenerative Medicine Institute, NYU Grossman School of Medicine, New York, NY, United States

11:00 P1.04 Myxomavirus-Derived Immune-Modulating Serine Protease Inhibitor Serp-1 Augments Skin Tissue Repair

Brittany Boyko^{2,1}, Katherine Gilliam², Liqiang Zhang^{3,4}, Alexandra Lucas^{3,4}, Kaushal Rege^{2,1}, Jordan R. Yaron^{2,1}

¹School for Engineering of Matter, Transport, & Energy, Arizona State University, Tempe, AZ, United States ²Center for Biomaterials Innovation and Translation, ASU Biodesign Institute, Tempe, AZ, United States ³Center for Personalized Diagnostics, ASU Biodesign Institute, Tempe, AZ, United States ⁴Serpass Biologics, LLC, Tempe, AZ, United States

11:10 P1.05 A Bifunctional Mitochondria-Targeted Peptide (SPN-15) Accelerates Diabetic Wound Healing

Kristyna Hargitaiova¹, Hazel Szeto², Khizar Hayat³, Jeanine Peters-Kennedy¹, Shaoyi Liu², Claire Ma¹, Debanjoli Chowdhury¹, Michelle L. Delco¹

¹Department of Clinical Sciences, Cornell University, Ithaca, NY, United States ²Social Profit Network, Menlo Park, CA, United States ³City University of Hong Kong, Kowloon, Hong Kong

11:20 P1.06 A Novel Wound Matrix Containing Antimicrobial Silver And Lidocaine Hcl

Eric Crawford, Tra Vinikoor, Gaurav Pranami, Ankit Agarwal
Imbed Biosciences Inc., Middleton, WI, United States

Fibrosis & Scarring (P2)

Moderators: Anie Phillip & Dorothy Supp

- 10:30 **P2.01 Integrative Bulk RNA Sequencing Analysis Identifies Common and Unique Pathways in Keloid and Hypertrophic Scarring**
Daniel A. Rabin^{2, 1}, Aneeq S. Chaudhry², Shoshana Bar-Meir², Thomas Mustoe², Seok Jong Hong², Robert Galiano²
¹University of Illinois College of Medicine at Chicago, Chicago, IL, United States ²Department of Plastic Surgery, Northwestern University Feinberg School of Medicine, Chicago, IL, United States
- 10:40 **P2.02 Role Of Keratin 16 In Epidermal Cell Behavior And Wound Healing In Mice**
Noriko Aramaki, Keisuke Okabe, Kazuo Kishi
Department of Plastic and Reconstructive Surgery, Keio University School of Medicine, Shinjuku-ku, Tokyo, Japan
- 10:50 **P2.03 Timeliness Of Surgical Excision In Cutaneous Leiomyosarcoma: Predictors Of Delay And Implications For Wound And Tissue Outcomes**
Alexa DiNello¹, Tejas Joshi², Anna Catinis², Ikue Shimizu²
¹The Ohio State University College of Medicine, Columbus, OH, United States ²Department of Dermatology, Baylor College of Medicine, Houston, TX, United States
- 11:00 **P2.04 Intrinsic Keratinocyte Phenotypes Distinguish High- and Low-Scarring Patients**
Mary Elizabeth Guerra¹, Casey Baxter¹, Navya Nanda¹, Hui Li¹, Ling Yu¹, Paul Bollyky², Sundeep G. Keswani¹, Swathi Balaji¹
¹Baylor College of Medicine, Houston, TX, United States ²Stanford School of Medicine, Stanford, CA, United States
- 11:10 **P2.05 SFRP2 Promotes Cardiac Regeneration By Multimodal Regulation Of WNT, TGF β and Map Kinase Signaling Pathways**
Delany Bradford, Sarika Saraswati
Tennessee State University, Nashville, TN, United States
- 11:20 **P2.06 Cell-Cell Talk Under Mechanical Cues Rewires Wound Healing Responses Through Fak Signaling In Macrophages**
Kento Takaya, Dharshan Sivaraj, Fidel Saenz, Nicholas Matthews, Emily Galvin, Andrew Hostler, Hudson C. Kussie, Maria Gracia Mora Pinos, Katharina Fische¹, Geoffrey C. Gurtner, Kellen Chen
Surgery, University of Arizona, Tucson, AZ, United States
-

Infections & Biofilms (P3)

Moderators: Nandini Ghosh & Daniel Gibson

- 10:30 **P3.01 Management of Infected or Exposed Spinal Instrumentation: A 20-Year Institutional Review of Complex Spinal Wounds**
Aneeq S. Chaudhry, Daniel A. Rabin, Taaha Hassan, Jonathan Bricker, Erin Kelley, Jason H. Ko, Marco F. Ellis, Gregory A. Dumanian, Robert Galiano
Plastic and Reconstructive Surgery, Northwestern University Feinberg School of Medicine, Chicago, IL, United States
- 10:40 **P3.02 Squamous Cell Carcinoma Antigen-1/SerpinB3 Is an Endogenous Skin Injury Response Element**
Jordan R. Yaron^{1, 2}, Shubham Pallod^{1, 2}, Sepideh Nezhadi^{1, 2}, Holly Gildar³, Jayda Hylton-Pelaia⁴, Jordan Roberts⁴, Jacquelyn Kilbourne⁵, Kaushal Rege^{1, 2}
¹*School for Engineering of Matter, Transport, & Energy, Arizona State University, Tempe, AZ, United States* ²*Center for Biomaterials Innovation and Translation, ASU Biodesign Institute, Tempe, AZ, United States* ³*College of Health Solutions, Arizona State University, Tempe, AZ, United States* ⁴*School of Life Sciences, Arizona State University, Tempe, AZ, United States* ⁵*Department of Animal Care Technologies, Arizona State University, Tempe, AZ, United States*
- 10:50 **P3.03 Flap Reconstruction and Hardware Preservation in Infected Spinal Wounds: A Nationwide Propensity-Matched Study**
Aneeq S. Chaudhry, Daniel A. Rabin, Katherine Kozlowski, Marlynn P. Lopez, Angelica Bartler, Diana Griffin, Nicole Ontiveros, Shoshana Bar-Meir, Tarifa Adam, Robert Galiano
Plastic and Reconstructive Surgery, Northwestern University Feinberg School of Medicine, Chicago, IL, United States
- 11:00 **P3.04 Association Of Fungi With Diabetic Foot Ulcer Outcomes**
Michelle R. Bode², Alex Cheong¹, Meghan Brennan¹, Lindsay Kalan²
¹*Department of Medical Microbiology & Immunology, University of Wisconsin-Madison, Madison, WI, United States* ²*Department of Biochemistry & Biomedical Sciences, McMaster University, Hamilton, ON, Canada*
- 11:10 **P3.05 Intralesional Printing Of Antimicrobial-Eluting Drug Depots For The Treatment Of Biofilms**
Mohamadmahdi Samandari^{1,2}, Steven Toro², Roberto Vazquez-Munoz², Anna Dongari-Bagtzoglou², Ali Tamayol²
¹*Old Dominion University, Norfolk, VA, United States.* ²*UConn Health Center, Farmington, CT, United States*
- 11:20 **P3.06 Bioelectric Wound Dressing Reverses Dysbiosis And Reduces Surgical Site Recurrence In Hidradenitis Suppurativa**
Tammy Gonzalez, Marita Yaghi, Hadar Lev-Tov, Irena Pastar
Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, FL, United States
-

Clinical Outcomes (P4)

Moderators: Mitch Sanders & Kath Bogie

- 10:30 **P4.01 Nutrient Limitation Supports Stress Tolerance In Anaerobic Chronic Wound Pathogens**
Francia Lopez Palomera, Karis Lincoln, Melanie Spero
Biology, University of Oregon, Eugene, OR, United States
- 10:40 **P4.02 The Impact Of Telehealth Adoption During COVID-19 On Clinical Outcomes In Patients With Cutaneous Wounds**
Janmesh D. Patel^{1, 2}, Pooja Shet^{1, 2}, Harrison J. Shawa¹, Tristan Huang³, Roslyn R. Isseroff^{2, 1}, Sara Dahle Dahle^{1, 4}
¹*Dermatology, University of California, Davis, Rancho Cordova, CA, United States* ²*Dermatology, VA Northern California Healthcare System, Mather, CA, United States* ³*Health Sciences, California Northstate University, Rancho Cordova, CA, United States* ⁴*Podiatry Section, VA Northern California Healthcare System, Mather, CA, United States*
- 10:50 **P4.03 Epigenetic Silencing of Endothelial Metallothionein Undermines VEGF Therapy in Diabetic Ischemic Wound Healing**
Kanhaiya Singh, Sumit S. Verma, Diksha Pandey, Parul Katiyar, Ajay Sahi, Chandan K. Sen
Department of Surgery, McGowan Institute for Regenerative Medicine, Pittsburgh, PA, United States
- 11:00 **P4.04 Outcomes of Chronic Inflammatory Skin Conditions in Incarcerated vs Non-Incarcerated Populations: A Multicenter Cohort Study**
Akachukwu Eze, Ogenna Chike, Caitlin Coyne, Miriam Michael
Department of Medicine, Howard University College of Medicine, Washington, DC, United States
- 11:10 **P4.05 Racial And Geographic Disparities In Global Cutaneous Scar Clinical Trials**
Shreya Chandak, Makenna Ley, Javier Gonzalez, Caitlyn Dagenet, Aaron Mason
University of Arizona, Tucson, AZ, United States
- 11:20 **P4.06 Pressure Injury–Related Malpractice Litigation: A Retrospective Medicolegal Study**
Daniel A. Rabin^{2, 1}, Aneeq S. Chaudhry², Hibba Sumra², Katherine Kozlowski², Marlynn P. Lopez², Diana Griffin², Tarifa Adam², Thomas Mustoe², Robert Galiano²
¹*University of Illinois College of Medicine at Chicago, Chicago, IL, United States* ²*Department of Plastic Surgery, Northwestern University Feinberg School of Medicine, Chicago, IL, United States*

11:30 AM **WHS MEETING ADJOURNS**

11:30 AM – 2:00 PM **LUNCH WITH EXHIBITORS**