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 WHS 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 **WOUNDSHARK 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 Theocharidis, 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 Kumar[1], Ankit Tandon[1], Miguel Jorge[1], Imran Khan[1], Bryce Hockman[1, 2], Kaitlyn Depinet[2], Beth Altenburger[2], Jaimee Haan[2], Gregory Westin[1, 2], Marjana Tomic-Canic[3], Rivka Stone[3], 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 Bitolas[2], Melissa Tran[1], Madeleine Landau[3], Erin Brush[4], Alyssa Ehrhardt[2], Katja Koll[2], Kendall Reitz[2], David Salven[2], David A. Brown[4]

[1] Stanford University, Palo Alto, CA, United States [2]Duke University School of Medicine, Durham, NC, United States [3]Tulane University School of Medicine, New Orleans, LA, United States [4]Duke 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. Chaudhry[1], Diana Griffin[1], Daniel A. Rabin[1], [5], Nicole Ontiveros[1], Tarifa Adam[1], Robert Galiano[1]
[1]Plastic Surgery Department, Northwestern University, Chicago, IL, United States [2]Carle Illinois College of Medicine, Urbana, IL, United States [3]Chicago Medical School at Rosalind Franklin University of Medicine and Science, North Chicago, IL, United States [4]University at Buffalo Jacobs School of Medicine and Biomedical Sciences, Buffalo, NY, United States [5]University of Illinois College of Medicine, Peoria, IL, United States

2:45 **I.05 A Novel Lytac Approach Targets IL-1β and MMP-9 To Improve Wound Healing In Diabetes**

Leah Cooksey[1], Iaden Fenercioglu[1], Andrea Díaz[2], Petar Petrov[2], Tomás Sobrino[3], Juan S. Ruiz[2], Holly N. Wilkinson[1], Matthew Hardman[1]
[1]University of Hull, UK, Hull, United Kingdom. [2]Lincbiotech, Ourense, Spain. [3]Health 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 Guerra[1], Casey Baxter[1], Hui Li[1], Ling Yu[1], Paul Bollyky[2], Sundeep G. Keswani[1], Swathi Balaji[1]
[1]Baylor College of Medicine, Houston, TX, United States [2]Stanford 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-Kuflom[1], [2], Anuj Budhiraja[2],[5], Alisha Mehta[2], [5], Julianne Rizzo[2],[3], Daniel J. Yoon[2], Caroline C. Liu[2],[3], Daniel Link[4], 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 [4]Vascular Surgery, VA Northern California Healthcare System, Sacramento, CA, United States [5]California Northstate College of Medicine, Elk Grove, CA, United States [6]Podiatry 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 Adam[1], Daniel A. Rabin[1], Katherine Kozlowski[1], Shoshana Bar-Meir[1], Seok Jong Hong[1], Robert Galiano[1]
[1]Plastic and Reconstructive Surgery, Northwestern University Feinberg School of Medicine, Chicago, IL, United States [2]Plastic 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 IL1β+ 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 α3β1 Links To Age-Related Wound Closure Delays And May Represent A Novel Target Of Therapy**
Sanjana Dhulipalla[1], Pratik Vangal[1], Salima Lalani[2], Lei Wu[1], 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. Rodriguez[1], Alan Woessner[2], 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 Gonzalez[1], Monica Rodriguez Silva[2], Ryan Lee[1], Ana Monzant[1], Emmy Dugi[1], Carlos Moraes[2], Marjana Tomic-Canic[1], Ivan Jozic[1]
[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 Cooksey[1], laden Fenercioglu[1], Tania Bernardes[1], alice fearne[1], Celine Gerard[2], Valerie Dion[2], Matthew Hardman[1], Holly N. Wilkinson[1]
[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 Grant[1], Hanna Abu-Zahra[1, 2], Lara Serhan[1, 2], Brunno F. Caetano[1], Bishnu P. Joshi[1], Nivedha Suresh[1], Ana Tellechea[1]
[1]Gel[4]Med, Lowell, MA, United States [2]University 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 Padmakumari[1], Deepa Dehari[1], Getnet Tesfaw[1], Mazaher Gholipourmalekabadi[2], Athena M. Soulika[1], Sasha Shafikhani[1]
[1]Department of Dermatology, University of California Davis Health, Sacramento, CA, United States
[2]Cellular 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. Adams[1], Dominika Pullmann[1], Hannah Belostotsky[1], Tamara Mestvirishvili[3], Ernest Chiu[1], Cheongeun Oh[2], Piul S. Rabbani[1, 4]
[1]Hansjörg Wyss Department of Plastic Surgery, NYU Grossman School of Medicine, New York, NY, United States [2]Department of Population Health, NYU Grossman School of Medicine, New York, NY, United States [3]Applied Bioinformatics Laboratory, NYU Grossman School of Medicine, New York, NY, United States [4]Department 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. Can[1], Ernest E. Obeng[1], Changling Du[3], Serinella Serenelli[2], Mary B. Monroe[1]
[1]Biomedical Engineering, Texas A&M University, College station, TX, United States. [2]Pathology, SUNY Upstate Medical University, Syracuse, NY, United States. [3]Biomedical 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 Homsi, 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 Hahn[1], Kelly A. Combs[1], Yi Cheng[3], Kewa Gao[4], [3], Ping Zhou[3], Aijun Wang[3], Heather Powell[5], [2]
[1]Surgery, University of Cincinnati College of Medicine, Cincinnati, OH, United States [2]Shriners Children's Ohio, Dayton, OH, United States [3]UC Davis, Davis, CA, United States [4]Arc Institute, Redwood City, CA, United States [5]The Ohio State University, Columbus, OH, United States

11:00 **K3.04 Peptide-Based Biomimetic Matrix Eliminates Multidrug-Resistant Pseudomonas In Complex Wounds**
Ana Tellechea[1], Trudy-Ann Grant[1], Brunno Caetano[1], Bishnu P. Joshi[1], Nivedha Suresh[1], Daljit Kaur[1], Rebecca Salamone[1], Tarak Bakhda[1], Ankita Kshatriya[1], Manav Mehta[1], Lisa Gould[2]
[1]Gel[4]Med, Lowel, MA, United States [2]South 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 Baxter[1], Fateme Nazaryabrbekoh[2], Rami Choumar[2], Varun Akondy[1], Arin Kumar[1], Hui Li[1], Ling Yu[1], Mary Elizabeth Guerra[1], Jangwook P. Jung[2], Swathi Balaji[1]
[1]Surgery, Baylor College of Medicine, Houston, TX, United States [2]Lousiana 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 Pang[1], Brandon E. Lukas[2], Yang Dai[2], Timothy J. Koh[1]
[1]Kinesiology & Nutrition, University of Illinois at Chicago, Chicago, IL, United States [2]Department 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 M^2 Macrophage Phenotype**
Justin Avery[1], Hattie E. Hensley[2], Steven Zabroski[3], Kelly A. Kimmerling[1], Katie Mowry[1]
[1]Research & Development, Organogenesis, Birmingham, AL, United States [2]University of North Carolina at Chapel Hill, Chapel Hill, NC, United States [3]Research & 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 Harmon[1], Kamari Marzette[2], Kelly A. Kimmerling[1], Katie Mowry[1]
[1]Research & Development, Organogenesis, Birmingham, AL, United States [2]University 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 Fu[2], Kaushal Rege[2, 1], Jordan R. Yaron[2, 1]
[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

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 Mora[1], Melisa Kafali[1], Katharina Fischer[2], Stacy Skopp[1], Kellen Chen[2], Geoffrey C. Gurtner[2], 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 Afzali[1], Sanan Gueyikian[2], Michael E. Troka[1], Julia M. Ognibene[4], Michael V. Gonzalez[3], Dana Graves[1]

[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 Regualting the Protease Levels In Wound Healing**

Neehariccka Measala[1], Lisa Gould[2], Piyush Koria[1]

[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 Ruhnke[1], Nava P. Rijal[1], Jeremy Lesas[2], Andrei Kogan[3], Daria Narmoneva[1]

[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 Liu[1], Marien Ochoa[1], Bailey Donahue[1], Mary Junak[1], Angela Gibson[1], Brian Pogue[2]
[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 Dehari[1], Rajalekshmy Padmakumari[1], Maliha Newsome[3], Guadalupe Lugo[3], Fariba Mohebichamkhorami[1], [3], Sasha Shafikhani[1], 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 Jameel[1], Maria Khalid[3], Asmat Salim[1], Irfan Khan[2], Muhammad Raza Shah[3]
[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 Liu[1], Lingxin Cheng[2], Mary Junak[1], Bailey Donahue[1], Di Yan[3], Christina Kendziorski[2], Angela Gibson[1]
[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 Jamison[1], Md Salauddin Sk[1], Sydney Demers[1], Benjamin Schwartz[1], Logan Rush[2], Joel Kidd[3], Robert Klein[4], Jordon Gilmore[1]
[1]Bioengineering, Clemson, Taylors, SC, United States [2]Biochemistry & Genetics, Clemson University, Clemson, SC, United States [3]Prisma Health, Seneca, SC, United States [4]Prisma Health, Greenville, SC, United States

2:25 **L3.02 Next-Generation Wound Histology Through Ai-Powered Virtual Staining**
Malavika Nidhi[1], [2], Alan Woessner[2], Marcos R. Rodriguez[2], Jake Jones[2], Jamie L. Burgess[3], Jessica Gilman[4], Irena Pastar[3], Marjana Tomic-Canic[3], Aristidis Veves[4], Kyle Quinn[1], [2]
[1]Biomedical Engineering, Tufts University, Fayetteville, AR, United States [2]. Biomedical Engineering, University of Arkansas, Fayetteville, AR, United States [3]Dr. Phillip Frost Department of Dermatology & Cutaneous Surgery, University of Miami Miller School of Medicine, Miami, FL, United States [4]Beth 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
Bioenginering, 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 Jimenez[1], Yveeka Marcellus[1], Aliyah Stephens[1], Alisha Oropallo[2], [4], David S. Margolis[3], [4], Kara L. Spiller[1], [4]
[1]School of Biomedical Engineering, Science and Health Systems, Drexel University, Philadelphia, PA, United States [2]Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Hempstead, New York, NY, United States [3]Department of Dermatology and Department of Biostatistics and Epidemiology, University of Pennsylvania, Philadelphia, PA, United States [4]Diabetic Foot Consortium, NIDKK, 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 Seeta[1], Tran Ho[2], Olivia Clark[2], Blake Hollenbeck[3], Eda Kurtulmus[2], Jessica Replogle[3], Georg Weber[4], Daria Narmoneva[2]
[1]Medical Sciences, College of Medicine, University of Cincinnati, Mason, OH, United States [2]Biomedical Engineering, College of Engineering & Applied Sciences, University of Cincinnati, Cincinnati, OH, United States [3]Summit Country Day High School, Cincinnati, OH, United States [4]Cancer Center, College of Pharmacy, University of Cincinnati, Cincinnnati, 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 Couch[1], Amar Ifetiha[1], Matthew Sigel[1], Joseph Petro[1], Kate Szymanski[2]
[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 Shinde[1], Morgan Vague[1], Sharon Choe[2], Shannon Throckmorton[1], Alex Ortega-Loayza[1]
[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 Cole[1], Lisa Gould[2], Zweli Tunyiswa[3], Rhonda Sullivan[4], Mervin Low[5]
[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 Gallegos[1], Janmesh D. Patel[1,2], Pooja Shet[1 2], Johanna Ghebrehiwet-Kuflom[1,2], Mirabel Dafinone[1,2], Pallas Lim[2], Neda Afshar[2], Chuong Nguyen[1], Kaitlyn West[2], 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 Inflame-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 Omeir[1], Rebecca Gabrilska[4], Craig Tipton[2], Clint Miller[3], Joseph Wolcott[3], Todd

D. Little[1], Caleb Phillips[1]
[1]Texas Tech University, Lubbock, TX, United States [2]MicrogenDX, Lubbock, TX, United States [3]Southwest Regional Wound Care Center, Lubbock, TX, United States [4]Texas 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 Stechmiller[2], Michael T. Weaver[2], Magali Rezende de Carvalho[2], Debra E. Lyon[2]
[1]Chungnam National University College of Nursing, Daejeon, Korea (the Republic of). [2]College of Nursing, University of Florida, Gainesvile, 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 Ainsworth[1], Madeline Hakala[1, 4,] Kim Nguyen[1, 5,] Tim Houser[6], Tage Carlson[1], Abram D. Janis[1]
[1]Hollister Incorporated, Libertyville, IL, United States [2]Master of Biotechnology Program, Northwestern University, Evanston, IL, United States [3]Department of Chemical and Biological Engineering, McCormick School of Engineering, Northwestern University, Evanston, IL, United States [4]Department of Bioinformatics, Loyola University Chicago, Chicago, IL, United States [5]Industrial Engineering, Northwestern University, Evanston, IL, United States [6]Dermico 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 Patel[1], Liping Zhang[1], Songmei Meng[1], Vijay Boda[2], Wei Li[2], Junwang Xu[1]
[1]Physiology, UTHSC, Memphis, TN, United States [2]Pharmaceutical 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 Juneja[1], Dominika Pullmann[1], Priyanka Pulvender[1], Aditya Arkalgud[1], Dianny Almanzar[1], Sydney Hanson[1], Piul S. Rabbani[1], [2]
[1]Hansjörg 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 Gilliam[2], Liqiang Zhang[3,4], Alexandra Lucas[3,4], Kaushal Rege[2,1], Jordan R. Yaron[2,1]
[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]Center for Personalized Diagnostics, ASU Biodesign Institute, Tempe, AZ, United States [4]Serpass Biologics, LLC, Tempe, AZ, United States

11:10 **P1.05 A Bifunctional Mitochondria-Targeted Peptide (SPN-15) Accelerates Diabetic Wound Healing**
Kristyna Hargitaiova[1], Hazel Szeto[2], Khizar Hayat[3], Jeanine Peters-Kennedy[1], Shaoyi Liu[2], Claire Ma[1], Debanjoli Chowdhury[1], Michelle L. Delco[1]
[1]Department of Clinical Sciences , Cornell University, Ithaca, NY, United States [2]Social Profit Network, Menlo Park, CA, United States [3]City 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 & Dorthy 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. Chaudhry[2], Shoshana Bar-Meir[2], Thomas Mustoe[2], Seok Jong Hong[2], Robert Galiano[2]
[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

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 DiNello[1], Tejas Joshi[2], Anna Catinis[2], Ikue Shimizu[2]
[1]The Ohio State University College of Medicine, Columbus, OH, United States [2]Department 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 Guerra[1], Casey Baxter[1], Navya Nanda[1], Hui Li[1], Ling Yu[1], Paul Bollyky[2], Sundeep G. Keswani[1], Swathi Balaji[1]
[1]Baylor College of Medicine, Houston, TX, United States [2]Stanford School of Medicine, Stanford, CA, United States

11:10 **P2.05 SFRP2 Promotes Cardiac Regeneration By Multimodal Regulation Of WNT, TGFβ 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 Fische[1], 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 Gildar[3], Jayda Hylton-Pelaia[4], Jordan Roberts[4], Jacquelyn Kilbourne[5], 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. Bode[2], Alex Cheong[1], Meghan Brennan[1], Lindsay Kalan[2]
[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 Toro[2], Roberto Vazquez-Munoz[2], Anna Dongari-Bagtzoglou[2], Ali Tamayol[2]
[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. Shawa[1], Tristan Huang[3], 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. Chaudhry[2], Hibba Sumra[2], Katherine Kozlowski[2], Marlynn P. Lopez[2], Diana Griffin[2], Tarifa Adam[2], Thomas Mustoe[2], Robert Galiano[2]
[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**