**Dermal Literature Review**

**Period: 13/10/2023 – 01/11/2023**

[Scientific Highlights: 1](#_Toc147397870)

[Burn wound Infections (infections of or preventing infections) 1](#_Toc147397871)

[Diabetic Foot Ulcers 1](#_Toc147397872)

[Venous Leg Ulcers 1](#_Toc147397873)

[Dermal Biofilms 2](#_Toc147397874)

[Atopic Dermatitis & SA 2](#_Toc147397875)

[Dermal Fungal 2](#_Toc147397876)

[Competitors 2](#_Toc147397877)

[Dressings 2](#_Toc147397878)

[Guidelines 2](#_Toc147397879)

[Other news of possible interest 2](#_Toc147397880)

Scientific Highlights:

Burn wound Infections (infections of or preventing infections)

1. Metallic-Polyphenolic Nanoparticles Reinforced Cationic Guar Gum Hydrogel for Effectively Treating Burn Wound.
2. The distribution and the antimicrobial susceptibility features of microorganisms isolated from the burn wounds; a ten-year retrospective analysis.
3. Exploring the wound-healing and antimicrobial potential of Dittrichia viscosa L lipidic extract: Chemical composition and in vivo evaluation.

Diabetic Foot Ulcers

1. Signaling Pathways Triggering Therapeutic Hydrogels in Promoting Chronic Wound Healing.
2. Use of bioelectric dressings for patients with hard-to-heal wounds: a case report.
3. Various Types of Wounds That Diabetic Patients Can Develop: A Narrative Review.
4. The Therapeutic Efficacy of Freeze-Dried Human Amniotic Membrane Allograft Gel for Diabetic Foot Ulcers: A Phase-1 Clinical Trial.
5. Peripheral Blood Mononuclear Cells: A New Frontier in the Management of Patients with Diabetes and No-Option Critical Limb Ischaemia.
6. Non-coding RNAs in diabetic foot ulcer- a focus on infected wounds.
7. Diabetic Soft Tissue Infections.
8. Distribution of multidrug-resistant bacterial infections in diabetic foot ulcers and risk factors for drug resistance: a retrospective analysis.
9. Empirical Antibiotic Therapy in Diabetic Foot Ulcer Infection Increases Hospitalization.
10. Hospital Readmission in Patients With Diabetic Foot Ulcers: Prevalence, Causes, and Outcomes.
11. Impact of multidisciplinary care of diabetic foot infections for inpatients at Campbelltown Hospital.
12. Assessment and management of diabetes-related foot infection according to the new International Working Group on the Diabetic Foot guidelines 2023-Multidisciplinary grand rounds.
13. Association Between the Society for Vascular Surgery (SVS)-WIfI (Wound, Ischemia, Foot Infection) Classification, Wagner-Meggitt Classification, and Amputation Rate in Patients With Diabetic Foot Infection.
14. The Validity and Reliability of the SINBAD Classification System for Diabetic Foot Ulcers.
15. Retrospective Data Analysis of the Use of an Autologous Multilayered Leukocyte, Platelet, and Fibrin Patch for Diabetic Foot Ulcers Treatment in Daily Clinical Practice.
16. Efficacy and Safety of Different Antibiotic Therapies for Bone and Joint Infections: A Network Meta-analysis of Randomized Controlled Trials.
17. Adjunctive topical oxygen therapy in the management of complex diabetes-related wounds: A South African case study series.
18. A focused review on hyaluronic acid contained nanofiber formulations for diabetic wound healing.
19. Charcot arthropathy outcomes after early referral to a regional tertiary care foot clinic.
20. Clinical characteristics and the prognosis of diabetic foot in Tibet: A single center, retrospective study.
21. Lipidomics Characterization of the Microbiome in People with Diabetic Foot Infection Using MALDI-TOF MS.
22. Nasal MRSA carriage is a risk factor for development of antibiotic resistance in diabetic foot ulcers and is significantly higher than diabetic and non-diabetic individuals without foot ulcer.
23. Diabetes mellitus promotes the nasal colonization of high virulent Staphylococcus aureus through the regulation of SaeRS two-component systemnasal colonized S. aureus in type 2 diabetes.
24. Oxygen Saturation or Tissue Oxygen Determinations on Skin Whose Viability is at Risk.
25. A Narrative Review on the Role of Dalbavancin in the Treatment of Bone and Joint Infections.
26. Parenteral Vancomycin in the Treatment of MRSA-Associated Diabetic Foot Infections: An Unnecessary Risk.
27. Risk Factors Associated with Failure of Toe Amputation in Diabetic Foot Infections.
28. Mesenchymal Stem/Stromal Cell-Derived Small Extracellular Vesicles (MSC-sEVs): A Promising Treatment Modality for Diabetic Foot Ulcer.
29. Comparison of customized vacuum sealing drainage and vacuum sealing drainage in the treatment of diabetic foot ulcers: a retrospective analysis.
30. Caffeic Acid in Spent Coffee Grounds as a Dual Inhibitor for MMP-9 and DPP-4 Enzymes.

Venous Leg Ulcers

Dermal Biofilms

1. Advancing Biofilm Management through Nanoformulation Strategies: A Review of Dosage Forms and Administration Routes.
2. Bactericidal Effect of Iberin Combined with Photodynamic Antimicrobial Chemotherapy Against Pseudomonas aeruginosa Biofilm Cultured on ex vivo Wound Model.
3. Deubiquitination module is critical for oxidative stress response and biofilm formation in Candida glabrata.
4. Identification of staphyloxanthin and derivates in yellow-pigmented Staphylococcus capitis subsp. capitis.
5. Case Report of Myroides odoratimimus Cellulitis in Chronic Venous Stasis Dermatitis With Literature Review.
6. Ototoxicity associated with extended dalbavancin treatment for a shoulder prosthetic joint infection.
7. Detection of Antimicrobial Resistance and Biofilm Production Among Staphylococcus pseudintermedius from Canine Skin Lesions.
8. Gelatinase-responsive biodegradable targeted microneedle patch for abscess wound treatment of S. aureus infection.
9. Management of Biofilm with Breast Implant Surgery.
10. Weizmannia coagulans Extracellular Proteins Reduce Skin Acne by Inhibiting Pathogenic Bacteria and Regulating TLR2/TRAF6-Mediated NF-κB and MAPKs Signaling Pathways.
11. Enablers of Candida auris persistence on medical devices and their mode of eradication.
12. An exploration of mechanisms underlying Desemzia incerta colonization resistance to methicillin-resistant Staphylococcus aureus on the skin.
13. Restriction of Arginine Induces Antibiotic Tolerance in Staphylococcus aureus.
14. Naturally Derived Malabaricone B as a Promising Bactericidal Candidate Targeting Multidrug-Resistant Staphylococcus aureus also Possess Synergistic Interactions with Clinical Antibiotics.
15. New Weapons to Fight against Staphylococcus aureus Skin Infections.
16. Anti-Malassezia Drug Candidates Based on Virulence Factors of Malassezia-Associated Diseases.
17. Phenotypic and Genotypic Characterization of Cutibacterium acnes Isolated from Shoulder Surgery Reveals Insights into Genetic Diversity.
18. Regulation of σ(B)-Dependent Biofilm Formation in Staphylococcus aureus through Strain-Specific Signaling Induced by Diosgenin.

Atopic Dermatitis & SA

1. Are the predicted known bacterial strains in a sample really present? A case study.
2. Dermatologic conditions and risk factors in people experiencing homelessness (PEH): systematic review.
3. Inhibitory effect of theaflavin-3,3'-digallate can involve its binding to the "stem" domain of α-hemolysin of Staphylococcus aureus.
4. Persistent Neutrophil Infiltration and Unique Ocular Surface Microbiome Typify Dupilumab-Associated Conjunctivitis in Patients with Atopic Dermatitis.
5. Staphylococcus aureus Adaptation to the Skin in Health and Persistent/Recurrent Infections.

Dermal Fungal

1. Regulation of dermal fibroblasts by human neutrophil peptides.
2. Fabrication of wound dressings: Herbal extract-loaded nanoliposomes embedded in fungal chitosan/polycaprolactone electrospun nanofibers for tissue regeneration.
3. Identification of Desiccation Stress-Inducible Antioxidative and Antiglycative Ultraviolet-Absorbing Oxylipins, Saclipin A and Saclipin B, in an Edible Cyanobacterium Aphanothece sacrum.
4. The parapoxvirus Orf virus inhibits dsDNA-mediated type I IFN expression via STING-dependent and STING-independent signalling pathways.
5. Salmon nasal cartilage proteoglycan stimulates hair growth.
6. Spilanthes acmella Extract-Based Natural Oils Loaded Emulgel for Anti-Microbial Action against Dermatitis.
7. Characterization and Bio-Evaluation of the Synergistic Effect of Simvastatin and Folic Acid as Wound Dressings on the Healing Process.
8. The Antifungal Activities of Syzygium aromaticum and Alpinia purpurata Extracts Against Candida krusei: Bioactivity Tests, Molecular Modeling, and Toxicity Tests.
9. Loss of fragile WWOX gene leads to senescence escape and genome instability.

Competitors

1. Erosive balanitis caused by Staphylococcus haemolyticus in a healthy, circumcised adult male.
2. Decolonization Strategies to Prevent Staphylococcal Infections: Mupirocin by a Nose.
3. Purification and characterization of thioredoxin reductase enzyme from commercial Spirulina platensis tablets by affinity chromatography and investigation of the effects of some chemicals and drugs on enzyme activity.
4. Accelerative effects of alginate-chitosan/titanium oxide@geraniol nanosphere hydrogels on the healing process of wounds infected with Acinetobacter baumannii and Streptococcus pyogenes bacteria.
5. Bayesian modeling of the impact of antibiotic resistance on the efficiency of MRSA decolonization.
6. Development of a Nanoemulgel for the Topical Application of Mupirocin.
7. Nasal decolonization: What antimicrobials and antiseptics are most effective before surgery and in the ICU.
8. Chitosan and α-cellulose-based mupirocin topical film-forming spray: Optimization, in vitro characterization, antimicrobial studies and wound healing activity.
9. Greenness assessment of two chromatographic methods developed for the determination of Mupirocin in two binary mixtures along with its impurity.
10. Extensive Non-Bullous Facial Impetigo in an Adult.

Dressings

1. Nanoemulsion of Lavandula angustifolia Essential Oil/Gold Nanoparticles: Antibacterial Effect against Multidrug-Resistant Wound-Causing Bacteria.
2. Development and Evaluation of Topical Zinc Oxide Nanogels Formulation Using Dendrobium anosmum and Its Effect on Acne Vulgaris.
3. A multi-functional double cross-linked chitosan hydrogel with tunable mechanical and antibacterial properties for skin wound dressing.
4. Preparation of polyvinyl alcohol/chitosan nanofibrous films incorporating graphene oxide and lanthanum chloride by electrospinning method for potential photothermal and chemical synergistic antibacterial applications in wound dressings.
5. Evaluation of Anti-inflammatory and Antimicrobial Properties of Mustard Seed Extract-Based Hydrogel: An In Vitro Study.
6. Antifouling Zwitterionic Nanofibrous Wound Dressing for Long-Lasting Antibacterial Photodynamic Therapy.
7. Harnessing gradient gelatin nanocomposite hydrogels: a progressive approach to tackling antibacterial biofilms.
8. A nanozyme-reinforced injectable photodynamic hydrogel for combating biofilm infection.
9. Injectable Antiswelling and High-Strength Bioactive Hydrogels with a Wet Adhesion and Rapid Gelling Process to Promote Sutureless Wound Closure and Scar-free Repair of Infectious Wounds.
10. Porosity controlled soya protein isolate-polyethylene oxide multifunctional dual membranes as smart wound dressings.
11. An efficient magnetic nanoadsorbent based on functionalized graphene oxide with gellan gum hydrogel embedded with MnFe layered double hydroxide for adsorption of Indigo carmine from water.
12. Dynamic Microenvironment-Adaptable Hydrogel with Photothermal Performance and ROS Scavenging for Management of Diabetic Ulcer.
13. Copper ion/gallic acid MOFs-laden adhesive pomelo peel sponge effectively treats biofilm-infected skin wounds and improves healing quality.
14. Nanofibrous Dressing with Nanocomposite Monoporous Microspheres for Chemodynamic Antibacterial Therapy and Wound Healing.
15. Encapsulating Antibiotic and Protein-Stabilized Nanosilver into Sandwich-Structured Electrospun Nanofibrous Scaffolds for MRSA-Infected Wound Treatment.
16. Sequential Anti-Infection and Proangiogenesis of DMOG@ZIF-8/Gelatin-PCL Electrospinning Dressing for Chronic Wound Healing.
17. Antibacterial-Antioxidative Thiolated Gelatin/Methacrylated Silk Fibroin Hydrogels with Nitric Oxide Release Catalyzed by Metal-Polyphenol Nanoparticles for MRSA-Infected Wound Healing.
18. An Antibiotic-Loaded Silicone-Hydrogel Interpenetrating Polymer Network for the Prevention of Surgical Site Infections.
19. Antiseptic Chitosan-Poly(hexamethylene) Biguanide Hydrogel for the Treatment of Infectious Wounds.
20. Peelable Alginate Films Reinforced by Carbon Nanofibers Decorated with Antimicrobial Nanoparticles for Immediate Biological Decontamination of Surfaces.
21. Quercetin-loaded sodium alginate/collagen/h-boron nitride potential wound dressings prepared using the Box-Behnken experimental design.
22. Matrix-Mediated Delivery of Silver Nanoparticles for Prevention of Staphylococcus aureus and Pseudomonas aeruginosa Biofilm Formation in Chronic Rhinosinusitis.
23. Quantitative Insights and Visualization of Antimicrobial Tolerance in Mixed-Species Biofilms.
24. Fabrication, Characterization, and In Vitro Cytotoxicity Assessment of Tri-Layered Multifunctional Scaffold for Effective Chronic Wound Healing.
25. Temporal Changes in the Skin Microbiome of Epidermolysis Bullosa Patients following the Application of Wound Dressings.
26. A photocrosslinked methacrylated carboxymethyl chitosan/oxidized locust bean gum double network hydrogel for cartilage repair.

Guidelines

1. Are the predicted known bacterial strains in a sample really present? A case study.
2. Dermatologic conditions and risk factors in people experiencing homelessness (PEH): systematic review.
3. Inhibitory effect of theaflavin-3,3'-digallate can involve its binding to the "stem" domain of α-hemolysin of Staphylococcus aureus.
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Other news of possible interest