

Klinik für Gefäßmedizin

Stand: 23.01.2023

## Publikationen EK Stürmer

Stuermer EK, Besser M, Debus ES, Smeets R, Dietrich M. Bacterial infiltration in biofilm-colonized wounds: Analyses in the hpBIOM ex vivo wound model and possible impact on swabbing and debridement. *Int Wound J* 2023 [accepted]

Hackert B, Weger U, Stuermer EK. Empowerment in Chronic Wound Care – Exploring the scope for patients' contribution. *Frontiers of Nursing* 2023 [accepted]

Rembe JD, Stuermer EK. Biomarkers in wound healing and treatment. *Gefäßchirurgie* 2023; 27: <https://doi.org/10.1007/s00772-022-00968-0>

Severing AL, Borkovic M, Rembe JD, Stuermer EK. Composition of challenge substance in standardized antimicrobial efficacy testing of wound antiseptics is essential to simulate efficacy in the human wound microenvironment. *Biomedicines* 2022; 10: 2751. <https://doi.org/10.3390/biomedicines10112751>

Rembe JD, Thompson V, Hauer N, Stuermer EK. Evaluating cetylpyridinium-chloride (CPC) and miramistin (MST) compared to established antiseptics under proteinchallenge in-vitro – potential alternative agents for wound cleansing. *AIMS Microbiology* 2022; 4: 372-387.

Stürmer EK. Wundbiofilm – eine bakterielle Erfolgsgeschichte. *Wundmanagement* 2022; 16: Supp 1: 1-35

Schaefer S, Aavani F, Köpf M, Drinic A, Stuermer EK, Fuest S, Grust ALC, Gosau M, Smeets R. Silk Proteins in Reconstructive Surgery: Do They Possess an Inherent Antibacterial Activity? A Systematic Review. *Wound Repair Regen.* 2022; 15. doi: 10.1111/wrr.13049. Online ahead of print

Royzman D, Peckert-Maier K, Stich L, König C, Wild AB, Tauchi M, Ostalecki C, Kiesewetter C, Seyferth S, Leed G, Eming SA, Fuchs M, Kunz M, Stürmer EK, Peters E, Berking C, Zinser E Steinkasserer A. Soluble CD83 improves and accelerates wound healing processes via the induction of pro-resolving macrophages. *Front Immunol* 2022; 13: 1012647.

Smeets R, Henningsen A, Zernal O, Stürmer EK, Fiedler I, Schäfer S, Gosau M, Gaudin R, Stolzer C, Reinelt A, Fuest S. New and innovative biomaterials, techniques and therapy concepts: Biologization in maxillofacial surgery, oral surgery and dentistry is in full swing. PRF, PRGF, PRP, blood plasma-stabilized augmentations, supplementation of micronutrients and vitamins - what opportunities do such "biological" approaches actually offer? *GMS Interdiscip Plast Reconstr Surg DGPW* 2022;11:Doc05. doi: 10.3205/ipsr000166. eCollection 2022.

Smeets R, Tauer N, Vollkommer T, Gosau M, Henningsen A, Hartjen P, Früh L, Beikler T, Stürmer EK, Rutkowski R, Grust ALC, Fuest S, Gaudin R, Aavani F. Tissue Adhesives in Reconstructive and Aesthetic Surgery-Application of Silk Fibroin-Based Biomaterials. *Int J Mol Sci.* 2022; 12: 23(14):7687. doi: 10.3390/ijms23147687.

Besser M, Schaeler L, Plattfaut I, Brill F, Kampe A, Geffken M, Smeets R, Debus ES, Stuermer EK. Pulsed Low-Intensity Laser treatment stimulates wound healing without enhancing biofilm development in vitro. *J Photochem Photobiol B.* 2022;233:112504. doi: 10.1016

Hackert B, Weger U, Stürmer EK. Freiheitsgrade in der Wundtherapie – Empowerment von Patienten und der Effekt auf das Wund-Erleben. *Wundmanagement* 2022; 16: 338-343

Hackert B, Weger U, Stürmer EK. Freiheitsgrade als Tool für Empowerment in Theorie und Praxis. *CHAZ* 2022; 23: 514-517

Schäfer S, Köpf M, Drinic A, Kopp A, Hartjen P, Assaf A, Aavani F, Beikler T, Peters U, Fiedler I, Busse B, Stürmer EK, Vollkommer T, Gosau M, Fuest S, Ralf Smeets R. Antibacterial Properties of Functionalized Silk Fibroin and Sericin Membranes for Wound Healing Applications in Oral and Maxillofacial Surgery. *Biomater Adv.* 2022; 135: 212740. doi: 10.1016/j.bioadv.2022.212740.

Stürmer EK, Dissemont J. Evidenz in der lokalen Therapie chronischer Wunden: Was ist gesichert? *Phlebologie* 2022; 51(02): 79-87; doi: 10.1055/a-1755-4959

Stürmer EK, Rembe JD. Wund-Biofilm erkennen und verstehen: Therapeutische Möglichkeiten und ihre Grenzen. *Dermatologie Praxis* 02/2022

Smeets R, Henningsen A, Zernal O, Stürmer EK, Fiedler I, Schäfer S, Gosau M, Stolzer C, Reinelt A, Fuest S. Die Biologisierung in der MKG-Chirurgie, Oralchirurgie und Zahnmedizin ist in vollem Gang: PRF, PRGF, PRP, blutplasmastabilisierte Augmentate, Supplementierung von Mikronährstoffen und Vitaminen. *GMS Interdiscip Plast Reconstr Surg DGPW* 2022;11:Doc05; doi: 10.3205/ipsr000166

Severing AL, Rembe JD, Fuellerer M, Stuermer EK. Impact of the chronic wound microenvironment on in vitro wound healing and the effect of marine omega-3 fatty acids as local treatment option. *Exp Dermatol.* 2021; doi: 10.1111/exd.14506. [Online ahead of print]

Weber L, Kaltenhaeuser J, Besser M, Hagemann A, Bachmann HS, Stuermer EK. Effect of bacteria as new targets for farnesyltransferase inhibitors. *Front Microbiol* 2021; 30; 12:628283.

Stuermer EK, Plattfaut I, Dietrich M, Brill FHH, Kampe A, Wienecke V, Ulatowski A, Geffken M, Rembe JD, Naumova EA, Debus ES, Smeets R. In vitro activity of antimicrobial wound dressings on *P. aeruginosa* wound biofilm. *Front Microbiol.* 2021; 30; 12: 664030

Stuermer EK, Besser M, Brill F, Geffken M, Plattfaut I, Severing AL, Wiencke V, Rembe JD, Naumova EA, Kampe A, Debus ES, Smeets R. Comparative analysis of biofilm models to determine the efficacy of antimicrobials. *J Environ Health* 2021; 234: 113744

Stürmer EK. Lokaltherapie bei chronischen Wunden. *DermaForum* 2021; 12: 8-9

Plattfaut I, Besser M, Severing AL, Oplaender C, Stuermer EK. Plasma medicine and wound management: Evaluation of the antibacterial efficacy of a medically certified cold atmospheric argon plasma jet. *Int J Antimicrob Agents.* 2021; 11: 106319.

Plattfaut I, Demir E, Fuchs P, Schiefer JL, Stuermer EK, Bruening AKE, Oplaender C. Characterization of blue light treatment for infected wounds: Antibacterial efficacy of 420, 455 and 480 nm light emitting diodes against common skin pathogens vs. blue light-induced skin cell toxicity. *Photobiomodul Photomed Laser Surg.* 2021; 39: 339-348.

Stürmer EK, Dissemont J. Evidence in the local therapy of chronic wounds: What is proved? *Akt Dermatol* 2021; 47: 314–322

Stuermer EK, Storck M. Choosing wisely together—Recommendations on the treatment of chronic wounds. *Gefaesschirurgie* 2021; 26: 164–174

Stürmer EK, Barth S. Physiotherapie zur Narbenreduktion – Effektivität und Grenzen. *Wundmanagement* 2021; 15: 12-17

Moore Z, Weir D, Ayabe S, Bellingeri A, Carville K, Garten A, Jelnes R, Ruotsi L, Post H, Swan J, Swanson T, Stuermer EK, Tariq G, Woo K, Clark M. Strategies to reduce practice variation in wound assessment and management: The T.I.M.E. Clinical Decision Support Tool. *Wounds Intern* 2020; 10 [epub]

Smeets R, Henningsen A, Zernal O, Stuermer EK, Fiedler I, Wolff J, Schäfer S, Vollkommer T, Gosau M, Stolzer C, Fuest S. Neue und innovative Biomaterialien, Techniken und Therapiekonzepte. *Zahnärztl Praxis* 2020; 11: 8-14

Stuermer EK, Kortmann H, Barth S. Impact of different physiotherapeutic regimes on the outcome after knee lesions and gonarthrosis. *SM Physical Med Rehab* 2020; 3: 1-8

Plattfaut I, Opländer C, Stürmer EK. Atmosphärisches Kaltplasma und Blaulicht in der Wundtherapie. *Wundmanagement* 2020; 14: 225-228

Besser M, Schlobach R, Stuermer EK. Therapie mit pulsierenden elektromagnetischen Feldern – „nur“ Erfahrungsmedizin oder doch wissenschaftlich evidenzbasiert? Wundmanagement 2020; 14: 236-239

Augustin M, Stürmer EK, Dissemont J, Gerber V, Gruber B, Morbach S, Tigges WP, Storck M – für den Expertenrat Strukturentwicklung Wundmanagement. Empfehlungen zur Verbesserung der Versorgungsstruktur für Menschen mit chronischen Wunden in Deutschland. Wundmanagement 2020; 14: 357-365

Rembe JD, Stuermer EK. Die Moderne Wundantiseptik – Indikationen und Limitationen, zwischen Wissen, Wunsch und Unsicherheit. Gefäßchirurgie 2020; 25: 272-276

Besser M, Dietrich M, Weber L, Rembe JD, Stuermer EK. Efficiency of antiseptics in a novel 3-dimensional human plasma biofilm model (hpBIOM), Scientific Rep Nature Research 2020; 10: 4792

Rembe JD, Huelsboemer L, Besser M, Stuermer EK. Antimicrobial hypochlorous wound irrigation solutions demonstrate lower anti-biofilm efficacy against bacterial biofilm in a complex in vitro human plasma biofilm model (hpBIOM) than common wound antimicrobials. Frontiers in Microbiology 2020; 11: 564513

Opländer C, Plattfaut I, Stürmer EK. Blaulicht und physikalisches Kaltplasma: Neue Optionen in der Behandlung von infizierten und chronischen Wunden. Krankenhaus & Management 2020; 2: 21-23

Rembe JD, Boehm J, Fromm-Dornieden C, Hauer N, Stuermer EK. Comprehensive analysis of zinc derivatives pro-proliferative, anti-apoptotic and antimicrobial effect on human fibroblasts and keratinocytes in a simulated, nutrient-deficient environment in vitro. Int J Mol Cell Med. Spring 2020; 9: 165-178.

Krassovka JM, Suschek CV, Probst M, Grotheer V, Demir E, Fuchs PC, Schiefer JL, Windolf J, Stuermer EK, Oplaender C. The impact of non-toxic blue light (453 nm) on cellular antioxidative capacity, TGF- $\beta$ 1 signaling, and myofibrogenesis of human skin fibroblasts. J Photochem Photobiol 2020; 209: 111952.