

Wound Healing Society Honors Dr. Marjana Tomic-Canic with Lifetime Achievement Award, Recognizes Outstanding Miller School Researchers

This year's annual meeting of the Wound Healing Society and Symposium on Advanced Wound Care featured recognition of several researchers at the University of Miami Miller School of Medicine's Dr. Phillip Frost Department of Dermatology and Cutaneous Surgery.



Marjana Tomic-Canic, Ph.D., with the Wound Healing Society Lifetime Achievement Award.



Marjana Tomic-Canic, Ph.D., director of the Miller School's Wound Healing and Regenerative Medicine Research Program, led the honors, winning the society's prestigious Wound Healing Society Lifetime Achievement Award. The award recognizes the lifetime work of an individual who has provided leadership or made a significant discovery in wound healing and advanced the body of knowledge in wound care and research.

Only 14 recipients have won the award in the past 30 years, with the Miller School having the only department in the nation with two wins: William H. Eaglstein, M.D., in 2018, and Dr. Tomic-Canic this year, for her basic and translational research in wound healing. Dr. Tomic-Canic is also the first holder of the William H. Eaglstein, M.D. Endowed Chair in Wound Healing, reflecting the tremendous legacy of leadership in wound healing research at the Frost Department of Dermatology and Cutaneous Surgery.

Dr. Tomic-Canic is an internationally recognized scientist, inventor, and leader in skin biology who has dedicated her research career to understanding tissue repair and regeneration mechanisms in the skin. Her work laid the foundation of the wound genomics field and pioneered the approach of human wound models that significantly advanced the pathophysiology and understanding of wounds that do not heal. She has had a prolific career spanning over two decades and received continuous funding from the NIH.

"It is a very special moment in my career, but more importantly, it highlights the Frost Department of Dermatology and Cutaneous Surgery tradition and its wound healing research program," Dr. Tomic-Canic said. "What makes me particularly proud is the other members from our program who won awards,



delivered lectures, and presented their research at the meeting. It speaks to the strength of mentorship and superb talent of the next generations."

Departmental Recognition

In addition to Dr. Tomic-Canic, several other department members received awards from the Wound Healing Foundation of the Wound Healing Society.



From left: Ivan Jozic, Ph.D., Marjana Tomic-Canic, Ph.D., and Jelena Marjanovic, Ph.D.

Ivan Jozic, Ph.D., research assistant professor, received the H. Paul Ehrlich Rising Star in Wound Healing award for his commitment to wound healing research during the past five years. Dr. Jozic's research focuses on understanding the role that specialized lipid rafts called caveolae play in various skin diseases. The molecule at the center stage of caveolae is called caveolin-1, which acts as a Goldilocks indicator of general skin physiology: Too little caveolin-1 is associated with skin cancer, psoriasis, and hypertrophic scarring, while too much is associated with non-healing chronic wounds,



infection, permanent hair loss, and skin aging.

Dr. Jozic was the first to demonstrate that caveolin-1 inhibits directional cellular migration in skin cells. He also developed hydrogels that can be applied topically to wounds that target caveolae and caveolin-1 and showed that his novel therapeutic approach could accelerate wound closure.

"I am excited at our research's direction," Dr. Jozic said. "It is very inspiring to see an idea blossom from bench side, in vitro experiments to a potential commercial product that may be used to help people suffering from diabetic wounds that affect as many as one out of every three people with diabetes. Considering that the only FDA-approved therapeutic for the treatment of diabetic foot ulcers was approved way back in 1997 (recombinant human PDGF-BB), emerging therapies targeted at treating chronic wounds are desperately needed."

Jelena Marjanovic, Ph.D., a postdoctoral fellow under the mentorship of Dr. Tomic-Canic, received the Trainee Travel Award for having one of the top-scoring abstracts for her work "Topical Treatment with Antagomir-193b-3p Accelerates Diabetic Wound Healing."

Her abstract is about the anti-migratory and anti-healing roles of miR193b-3p in diabetic foot ulcers, and how by topically targeting this miRNA the phenotype of this type of chronic wound can be reversed from non-healing to healing.



Alex Higa, B.S. receiving the First Place Laboratory Research Award.

Alex Higa, B.S., a research associate on the team of Research Professor Stephen Davis, received the First Place Laboratory Research Award for the abstract "Determination of the Debridement Effects of an Enzymatic Hydrogel on Deep Dermal Wounds using a Porcine Model." This study aimed to assess the ability of a novel enzymatic hydrogel solution that uses an enzyme cloned from medical maggots to remove slough and reduce the bacterial bioburden in a deep porcine dermal wound model.

In addition to the awards, Rivka C. Stone, M.D., Ph.D., assistant professor and the recipient of last year's 3M Fellowship Award, gave the 3M Fellowship Award Lecture, "Targeting Inflammatory Networks that Control Healing Outcomes in Diabetic Foot Ulcers (DFU)."

Dr. Stone's research aimed at identifying the key inflammatory networks in DFU healing and at validating the networks using a prospective cohort of DFU healers and nonhealers.



Irena Pastar, Ph.D., research associate professor, was elected to the board of directors of the Wound Healing Society.

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