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The Charles Institute Seminar Series

Thursday, November 7th, 2024 @ 11 AM

In-Person in UCD Charles Seminar Room (& Online)

ZOOM ID & PASSWORD - 673 0844 5634 & 001419

Clinical and Mechanistic Research on Diabetic Wound Healing

Professor Wuquan Deng, MD, Ph.D
Professor of Endocrinology and Metabolism,
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BIO: Dr. Wuquan Deng is a Professor and Deputy Dean of Endocrinology and Chongqing University affiliated Central Hospital. His research team focuses on the pathogenesis of diabetes and its complications, alongside the development and translational application of advanced diagnostic and therapeutic technologies. Specifically, the team investigates the molecular mechanisms by which platelet-rich plasma and its derivatives—such as exosomes and nanovesicles—facilitate the healing of diabetic ulcers. Recently, they analyzed how the contents of platelet exosomes, including miR-26b, miR-132, and S1P, can inhibit wound inflammation and promote angiogenesis. Their ongoing efforts include modifying platelet derivatives to effectively target and regulate wound healing processes, as well as actively conducting clinical trials of platelet exosomes to enhance their clinical applicability.

Abstract: The molecular mechanisms platelet-rich plasma and its derivatives—such as exosomes and nanovesicles—facilitate the healing of diabetic wound. Clinical application study on autologous, allogene PRP for patients with diabetic foot. The contents of platelet-derived exosomes promote diabetic wound healing through three aspects: promoting proliferation (study one), enhancing angiogenesis (study two), and inhibiting wound inflammation (study three). Improving the modification of platelet-derived membrane vesicles to effectively target and regulate the wound healing process and actively conducting clinical trials of platelet-derived exosomes to enhance their clinical applicability.

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