

## **KOREADERMA 2023 Abstract Submission**

**Abstract submission for:**

Oral presentation only

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**Title of abstract (25 words maximum):**

**Exosomes in dermatology: Where are we now and where are we heading**

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(Disclosure: nothing to declare)

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**Main body (250 words maximum):**

### **Background:**

Exosomes are secreted by various cell types, including animal cells, plant cells, and even bacterial cells, and carry bioactive molecules such as proteins, nucleic acids, and lipids. They act as mediators of intercellular communication, influencing diverse biological processes relevant to skin health and disease. Understanding the role of exosomes in dermatology holds great potential for advancing diagnostics, treatment strategies, and regenerative therapies.

### **Objective:**

This lecture aims to review recent advancements in exosome research, explore their clinical applications in dermatology, and discuss the available commercial exosome products. The speaker will also share personal insights into their practical utilization in dermatological practice.

### **Methods:**

The lecture will incorporate a comprehensive literature review of recent studies investigating exosomes in dermatology. Data on exosome isolation techniques, characterization methods, and preclinical and clinical studies will be presented. Commercially available exosome products and their specific applications in dermatology will be discussed.

### **Results:**

Recent research has demonstrated the significant role of exosomes in various dermatological conditions, including wound healing, hair regeneration, inflammatory skin disorders, pigmentary disorders, and skin

aging. Furthermore, commercially available exosome-based therapies and cosmeceuticals have shown promising results in improving skin health and addressing specific dermatological concerns.

**Conclusion:**

Exosomes represent a rapidly evolving field in dermatology, with vast potential for both diagnostic and therapeutic applications. Understanding the current state and future directions of exosome research in dermatology will enhance dermatologists' ability to leverage these innovative tools for patient care and foster further exploration in this exciting field. However, product registration issues and medicolegal risks are main limitations of exosome application in dermatology currently.

**Keywords:** *exosome, extracellular vesicles, skin boosting agents*