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## Beyond the Barrier: Skin cells participate in touch and pain

**Tuesday, November 7<sup>th</sup>, 2023  
at 9:00 am**

Seminarraum B1.72  
DWI – Leibniz-Institut für Interaktive Materialien  
Forckenbeckstraße 50, 52074 Aachen

Host: Angelika Lampert

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**Abstract:** Keratinocytes are the most abundant cell type in the epidermis across the body and protect our health by keeping bugs out and water in the body. Recent data from several labs show that keratinocytes also play active roles in innocuous and noxious touch sensation in healthy skin. However, little is understood about keratinocytes' involvement in the development of touch hypersensitivity and chronic pain in neuropathy. This talk will focus on the active roles of keratinocytes in amplifying the signaling during chemotherapy neuropathy and traumatic nerve injury. Furthermore, we recently discovered that a protein called Piezo1 in keratinocytes is necessary for touch sensitivity in normal skin. Our new, unpublished data suggest that Piezo1 in keratinocytes also controls the debilitating touch pain caused by chemotherapy treatment. Given that keratinocytes are distributed across the entire body's surface, interact closely with sensory nerve endings in the skin, and communicate via various neuroactive signaling molecules, understanding their role in neuropathic pain could open new avenues for more effective pain management strategies.