Project A10 - Skin-sensing of environmental factors and their impact on the development of multiple sclerosis

Subcluster: Environment

**Project Summary:** Epithelial barrier tissues such as the skin are sensors for environmental and lifestyle factors impacting susceptibility and endophenotype of MS. We aim to investigate how skin-sensing of UV-B light can modulate disease susceptibility and severity in mouse models of MS as well as in MS patients. In particular, we will characterize the relevance of α-MSH signaling for sensing the lifestyle-factor UV-B light (including a proof-of-concept trial in humans), elucidate UV-B light-induced vitamin D-dependent and independent mechanisms for disease modulation, and scrutinize the role of AhR ligands involved in the transmission of environmental stimuli sensed in the skin.

**Principal Investigators:**

**Prof. Dr. Karin Loser**
Klinik für Hautkrankheiten
Experimentelle Dermatologie und Immunbiologie der Haut
Universitätsklinikum Münster
von-Esmarch-Str. 58
48149 Münster
Tel.: +49 251 83 52953
E-Mail: karin.loser@ukmuenster.de

**Prof. Dr. Heinz Wiendl**
Klinik für Allgemeine Neurologie
am Department für Neurologie
Universitätsklinikum Münster
Albert-Schweitzer-Campus 1, Gebäude A 1
48149 Münster
Tel.: +49 251 83 46811
E-Mail: heinz.wiendl@ukmuenster.de