新潟大学皮膚科特別セミナー

日時：2026年12月2日（水）18：00～

＊Zoomにて開催します。

GeoMx Spatial Profiling in Dermatologic Research: From Biomarker Discovery to Therapeutic Insights

Department of Dermatology, Seoul National University Hospital, Seoul, Korea

Clin. Assoc. Prof. Seon-Pil Jin

Skin diseases involve complex spatial interactions among epidermal, stromal, and infiltrating immune cells that bulk transcriptomics often obscures. GeoMx Digital Spatial Profiling enables pathology-guided, compartment-resolved molecular analysis while preserving histologic context. This presentation highlights the applications of spatial transcriptomics in dermatologic research. First, spatial profiling identified protein-validated candidate biomarkers distinguishing clinically ambiguous facial cutaneous lupus erythematosus from rosacea. Second, it classified atopic dermatitis–psoriasis overlap lesions into distinct subtypes along the Th2–Th17 axis. Third, intercompartmental analysis of halo nevi implicated interferon responses and death-receptor signaling in keratinocyte apoptosis. Finally, comparing blistered and intact pemphigus epidermis identified potential regulators of acantholysis, validated through in vitro screening and an active mouse model. Together, these studies demonstrate how spatial profiling complements clinicopathologic assessment, facilitating biomarker discovery, disease subtyping, mechanistic investigation, and therapeutic target identification.

1. Molecular Heterogeneity in Clinically Ambiguous Atopic Dermatitis-Psoriasis Overlap: Compartment-Resolved Transcriptomic Profiling. Lee J,…, Jin SP*, Kim JE*. Allergy. 2026 Sep 25.
2. Jin SP et al. Mapping the immune cell landscape of severe atopic dermatitis by single-cell RNA-seq. Allergy. 2024;79(6):1584-1597.