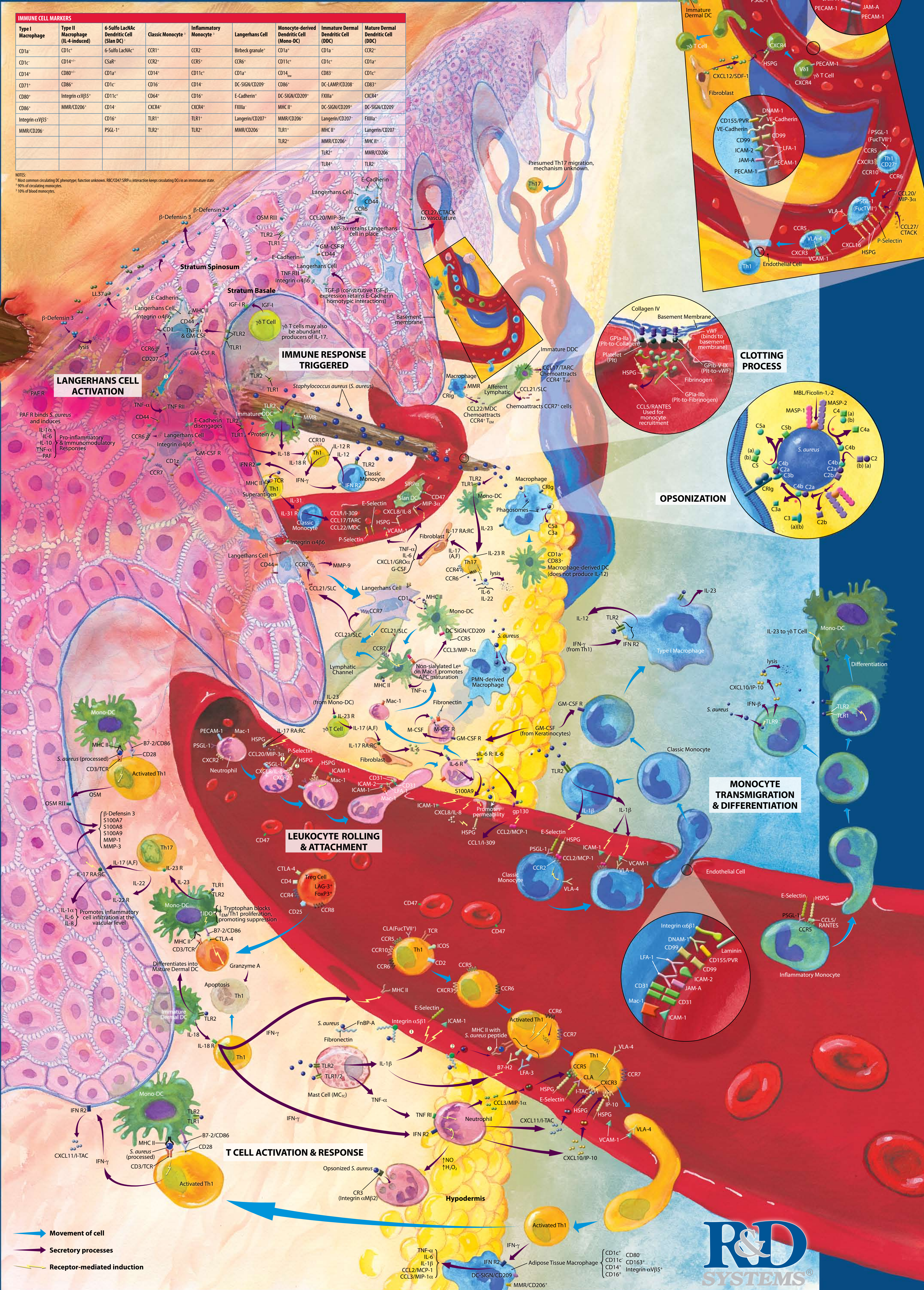


Cutaneous Immunology & Infectious Disease

The response to infection is crucial for the survival of an organism. It includes a complex cascade of immunological events involving an array of cell types and the integration of a multitude of biochemical signals. This illustration depicts early inflammatory processes that accompany insult of the epidermis by a sliver contaminated with the bacteria, *Staphylococcus aureus*. This is shown in contrast to normal tissue surveillance and the accompanying cellular migration patterns that enable the immune system to detect the introduction of pathogens.



IMMUNE CELL MARKERS	Type I Macrophage	Type II Macrophage (IL-4-induced)	6 Sulfu LacM _c Dendritic Cell (SLan DC)	Classic Monocyte ¹	Inflammatory Monocyte ²	Langerhans Cell	Monocyte-derived Dendritic Cell (Mono-DC)	Immature Dermal Dendritic Cell (IDC)	Mature Dermal Dendritic Cell (MDC)
CD1a ⁺	CD1c ⁺	CD14 ⁺	CD1a ⁺	CCR1 ⁺	CCR2 ⁺	CCR6 ⁺	CCR2 ⁺	CCR2 ⁺	CCR2 ⁺
CD1c ⁻	CD14 ⁻	CD1a ⁻	CD14 ⁻	CCR2 ⁻	CCR5 ⁺	CCR6 ⁻	CCR2 ⁻	CCR2 ⁻	CCR2 ⁻
CD14 ⁺	CD80 ⁺	CD1a ⁺	CD14 ⁺	CCR2 ⁺	CCR5 ⁺	CCR6 ⁺	CCR2 ⁺	CCR2 ⁺	CCR2 ⁺
CD71 ⁺	CD86 ⁺	CD1c ⁺	CD16 ⁺	CCR2 ⁺	CCR5 ⁺	CCR6 ⁺	CCR2 ⁺	CCR2 ⁺	CCR2 ⁺
CD80 ⁺	Integrin αVβ5 ⁺	CD11c ⁺	CD64 ⁺	CCR2 ⁺	CCR5 ⁺	CCR6 ⁺	CCR2 ⁺	CCR2 ⁺	CCR2 ⁺
CD86 ⁺	MMR/CD206 ⁺	CD14 ⁺	CCR4 ⁺	CCR2 ⁺	CCR5 ⁺	CCR6 ⁺	CCR2 ⁺	CCR2 ⁺	CCR2 ⁺
Integrin αVβ5 ⁺		CD16 ⁺	TLR1 ⁺	CCR2 ⁺	CCR5 ⁺	CCR6 ⁺	CCR2 ⁺	CCR2 ⁺	CCR2 ⁺
MMR/CD206 ⁺		PSGL-1 ⁺	TLR2 ⁺	CCR2 ⁺	CCR5 ⁺	CCR6 ⁺	CCR2 ⁺	CCR2 ⁺	CCR2 ⁺

NOTES:
¹ Most common circulating DC phenotype; function unknown. RBC/CD47/SIRPα interaction keeps circulating DCs in an immature state.
² 90% of circulating monocytes.
³ 10% of blood monocytes.

