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Monocytes 6 recruitment & differentiation

Virus 4 infection of stromal cells or resident DCs/MΦs

Neutrophils 5 recruitment & orchestrate response

Monocytes-derived DCs/MΦs 7 infection

DC migration 8 to lymph nodes

Disease 10 severity

Virus 9 drainage to lymph nodes then to brain, liver, lung or other organs

Mast cells 1 degranulation

Blood vessel 2 permeability

Plasma 3 leak & edema

Virus is transmitted with mosquito saliva into the dermis

Epidermis

Dermis

mosquito saliva

virus

mast cell

macrophage (MΦ)

resident dendritic cell (DC)

neutrophil

monocyte

monocyte-derived DC

Blood vessel

Plasma

Mast cells

Epidermis

Dermis

Virus

Neutrophils

Monocytes

Monocyte-derived DCs/MΦs

DC migration

Disease

Virus