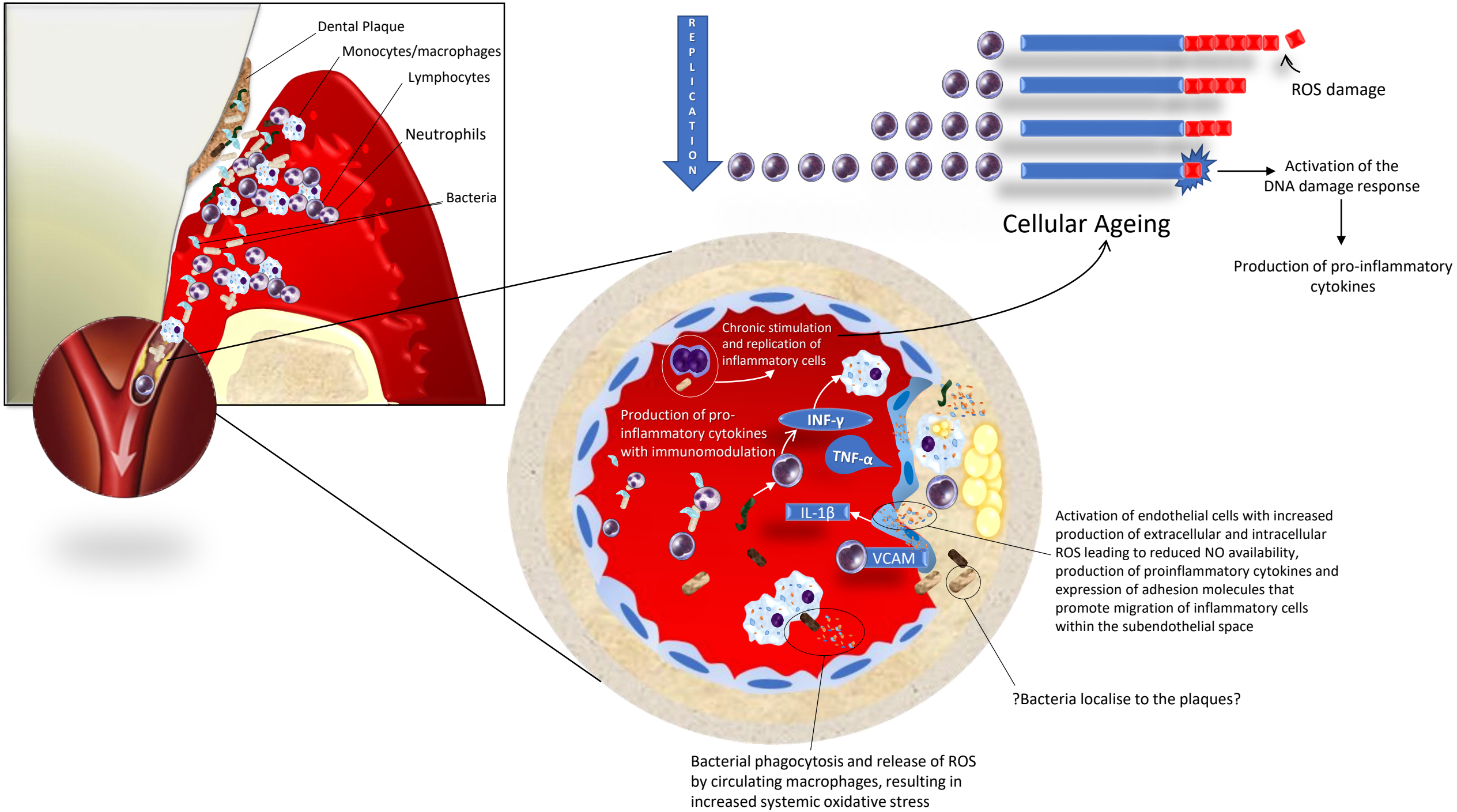
Dental Plaque
Monocytes/macrophages
Lymphocytes
Neutrophils
Bacteria
REPLICATION
ROS damage
Activation of the DNA damage response
Production of pro-inflammatory cytokines
Cellular Ageing
Chronic stimulation and replication of inflammatory cells
Production of pro-inflammatory cytokines with immunomodulation
INF-γ
TNF-α
IL-1β
VCAM
Activation of endothelial cells with increased production of extracellular and intracellular ROS leading to reduced NO availability, production of proinflammatory cytokines and expression of adhesion molecules that promote migration of inflammatory cells within the subendothelial space
?Bacteria localise to the plaques?
Bacterial phagocytosis and release of ROS by circulating macrophages, resulting in increased systemic oxidative stress