

KEY WORDS AND PHRASES FOR OVERVIEW OF PHAGOCYTOSIS AND THE COMPLEMENT PATHWAYS

A series of complement proteins known as the membrane attack complex or MAC put pores in cellular membranes resulting in lysis.

An electron pump brings protons (H^+) into the phagosome. This lowers the pH within the phagosome so that when a lysosome fuses with the phagosome, the pH is correct for the acid hydrolases to effectively break down cellular proteins.

Attachment of microbes to phagocytes by way of an antibody molecule called IgG or complement pathways proteins called C3b and C4b

Body defense cells and defense chemicals leave the blood and enter the tissue around an injured or infected site.

Enables the phagocytes to move toward the infected area in order to remove microorganisms

Lysosomes, containing digestive enzymes and microbicidal chemicals, fuse with the phagosome containing the ingested microbe and the microbe is destroyed.

Pathogen-associated molecular patterns or PAMPs on the microbe bind to endocytic pattern-recognition receptors on the surface of the phagocytes

Polymerization and then depolymerization of actin filaments send pseudopods out to engulf the microbe and place it in a vesicle called a phagosome.

The complement proteins C3b and C4b are known as opsonins because they bind microbes to phagocytes.

The phagocyte will empty the contents of its lysosomes in order to kill the microorganisms or cells extracellularly.