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Phagocytic programme

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Phagocytosis, the gobbling up of invading pathogens by professional phagocytes, is critical for innate immunity. In the Early Edition of [Proceedings of the National Academy of Sciences](#), Scott Kobayashi and researchers at the [National Institute of Allergy and Infectious Diseases](#) Rocky Mountain Laboratories in Hamilton, MT, describe a study of the [gene expression changes induced by phagocytosis](#) (DOI: 10.1073/pnas.010123497). They used oligonucleotide microarrays to monitor the expression of over 12,000 genes in human polymorphonuclear leukocytes (PMN) undergoing phagocytosis induced by either antibody receptors (FcR) or complement receptors (CR). The vast majority of the 279 differentially expressed genes were induced or repressed within 90 minutes of opsonization, and Kobayashi *et al.* identified gene sets specific to FcR or CR signalling. Many of the genes they identified are involved in the apoptotic cell death programme, and they provide experimental evidence for activation-induced apoptosis in human PMN.

References

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