uptake of oxidized LDL-cholesterol by macrophage-like cells (P388D1) was also inhibited significantly. The patch-clamp technique in the whole cell mode was applied to hippocampal glial cells in thin brain slices. These cells were previously shown to express glutamate receptors of AMPA/kainate subtype. Co-application of kainate (1 mM) together with RU 486 (0.1 - 10 μM) resulted in a significant reduction of the kainate-induced receptor conductance and thus mimicked the action of other selective receptor antagonists. Further investigations are needed in order to clarify the therapeutical potential of these findings.

P22.2.10
CHEMILUMINESCENCE IN ACTIVATED PERITONEAL PHAGOCYTES: ROLE OF ANTIOXIDANTS
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Phagocytes generate reactive oxyradicals which can be both beneficial and destructive to the host. These highly reactive molecules contribute considerably to various immune and non-immune inflammatory conditions. The chemiluminescence of luminol and lucigenin is used to detect the production of reactive oxygen derivatives by phagocytic cells. Scavengers e.g. superoxide dismutase and catalase, and inhibitors, e.g. azide, are usually used to determine the relative importance of the reactive molecules. Rat peritoneal exudate cells consisting mainly of macrophages were isolated at 18 hr following i.p. administration of thioglycollate medium. Phagocytes (1 x 10⁶ per ml) activated by the chemotactic peptide N-formyl-L-methionyl-L-leucyl-L-phenylalanine (fMLP; 10 μM) produced a weak spontaneous chemiluminescence that could be amplified by addition of luminol (10 μM). Light emission reached maximum within 1 min and subsided to <20% of peak values in 2 min. When opsonised zymosan (0.5 mg/ml) was used to stimulate the phagocytic activity, the rate of production of luminol chemiluminescence was much slower. Peak chemiluminescence was reached in about 25 to 30 min. Similar pattern of cellular response was observed when lucigenin (0.1 mM) was used as the amplifier, but the maximum chemiluminescence was comparatively weaker. Hydroxyl radical scavengers, thiourea and dimethylthiourea suppressed cellular chemiluminescence (IC₅₀ 80 mM) induced by both soluble (fMLP) and particulate (zymosan) stimuli. Dithiocarbamates, diethylthiocarbamate and pyrrolidine dithiocarbamate, displayed strong inhibitory actions at lower concentrations (IC₅₀ 50 μM). This suggests the importance of trace elements in the catalysis of free radical generation in phagocytic respiratory burst.

P22.2.12
TUMOR NECROSIS FACTOR-α (TNFα) INDUCTION OF HEPATOCYTE NITRIC OXIDE SYNTHASE (NOS) IS REGULATED BY THIOLS AND REACTIVE OXYGEN INTERMEDIATES (ROI).

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TNFα and interferons (IFNs) play a crucial role in the injury and...