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Congress of  
Immunology

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## Abstract Form

Only this official form is acceptable as the original submission. This form should be accompanied by 5 photocopies.

ROLE OF INTERLEUKIN 8 (IL-8) IN LEUKOCYTE HOMING AND EMIGRATION. Arthur O. Anderson<sup>1</sup>, Christian G. Larsen<sup>2</sup>, Joost J. Oppenheim<sup>2</sup>, and Kouji Matsushima<sup>2</sup>. <sup>1</sup>USAMRIID, Fort Detrick, Frederick, MD 21701-5011 and <sup>2</sup>NCI-FCRF, Fort Detrick, Frederick, MD 21701-1014, U.S.A.

### IMPORTANT:

Please indicate your preference of workshop number:

1st choice: W54

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Please state 3 keywords

Interleukin 8

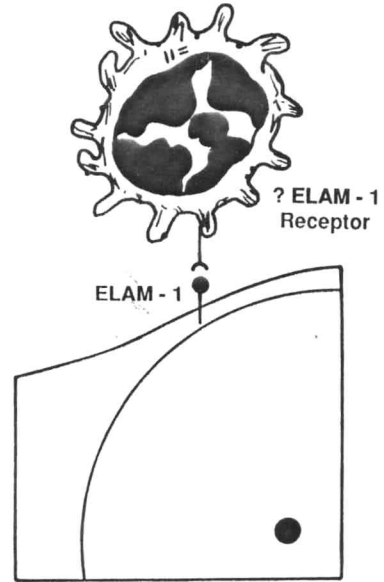
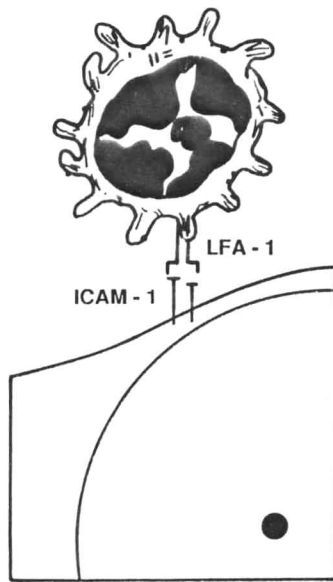
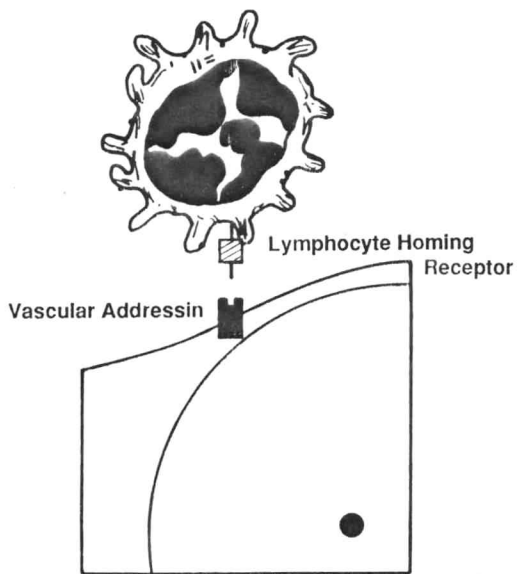
Chemotaxis

Homing

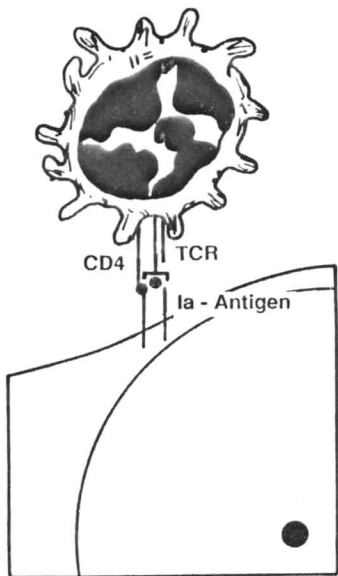
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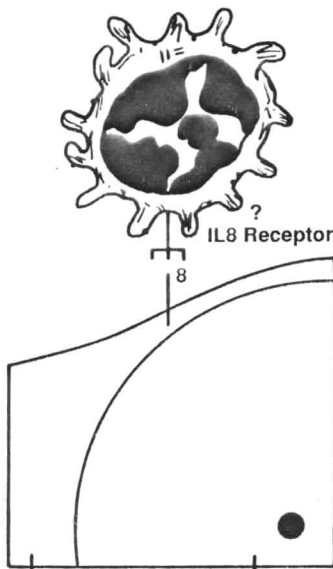
Adherent lymphocytes are attracted into lymphatic tissues by chemical gradients diffusing from between endothelial cells (Immunol. 31:731, 1976). A T-cell chemotactic factor (TCF) was purified from conditioned media of PHA-stimulated human mononuclear leukocytes and had an identical NH<sub>2</sub>-terminal amino acid sequence with that of recombinant neutrophil activating protein (rNAP-1, J. Exp. Med. 167: 1883, 1988). TCF and rNAP-1 exhibited 8Kda relative mobilities by SDS-PAGE, and both showed in vitro chemotactic activity with different optimal dose ranges for neutrophils and lymphocytes. Intradermal injection of human rNAP-1 (IL-8) in the ears of Fisher rats induced dose-dependent accumulation of lymphocytes and neutrophils but not monocytes. Lymphocytes and neutrophils were recruited by 0.001 µg/ml and 0.1 µg/ml optimal doses of IL-8, respectively. Lymphocyte emigration across high endothelial venules (HEV) was accelerated by IL-8 in regional lymph nodes without any neutrophil emigration. These data demonstrate that recruitment of neutrophils or lymphocytes from the blood into connective tissue is a function of net concentration of IL-8 except in lymph node HEV where neutrophils are excluded.



IL-1 / TNF



$\gamma$  - IF



IL-8

