



**Norwegian Society for Immunology**

# **Annual General Meeting**

**18<sup>th</sup> November 2005**

**SCIENTIFIC PROGRAMME:**

**1500 Main lecture: Guttorm Haraldsen**

**1545 Break with refreshments,  
Poster presentations**

**1615 Abstract session I**

**1730 Break with refreshments**

**1745 Abstract session II**

**Domus Odontologica, Sognsvannsvn. 10  
Rikshospitalet, University of Oslo, Norway**

# Main lecture

## Endothelial cell activation in inflammation and immunity

### Guttorm Haraldsen, MD, PhD

Guttorm Haraldsen, LIIPAT, Dept. and Inst. of Pathology, Rikshospitalet, Oslo, Norway

The physiologic circulation (homing) of leukocytes and their local recruitment to inflammatory sites is mediated by adhesion molecules and chemokines presented at the vascular surface. Such chemokines are either the product of endothelial cells themselves or transcytosed from the surrounding tissue. In the former case, endothelial cells can store chemokines in intracellular organelles and release them upon subsequent demand. To this end, we have mapped the properties of several chemokines, finding chemokines that predominantly attract innate immune can originate from two different granular compartments that are differentially sensitive to PKA, PKC and diacylglycerol signalling.

A striking feature of endothelial cells in the high endothelial venules (HEV) of secondary lymphoid tissues is their ability to recruit high numbers of circulating lymphocytes. Endothelial cells of chronically inflamed tissues adapt this phenotype but the signals that induce this change remain unknown. We recently identified a nuclear factor of HEV (NF-HEV). Of particular interest is the observation that NF-HEV shares structural homology with homeobox genes, one of which, PROX1, controls the differentiation of lymphatic vessels, therefore suggesting that NF-HEV may be involved in the control of HEV-differentiation. NF-HEV responds to  $\text{TNF}\alpha$  and  $\text{IFN-}\gamma$ , and is induced in vessels of rheumatoid arthritis, inflammatory bowel disease and psoriasis.



LIIPAT - Section for Endothelial Cells (Haraldsen Group)

From left: Axel, Inger, Guttorm, Sandra, Marjan, Mrinal and Dag

# List of abstracts

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## Oral presentations

### Session I

1. **Melinda Ráki**, Stig Tollefsen, Øyvind Molberg, Knut E. A. Lundin, Ludvig M. Sollid, Frode L. Jahnsen  
*A unique subset of dendritic cells accumulates in the celiac lesion and efficiently activates gluten-reactive T cells in vitro*
2. **Frønsdal K**, Shahdadfar A, Sigurjonsson O, Boquest AC, Tunheim SH, Collas P, Brinchmann JE  
*Gene expression profile of multipotent human CD34+ stem cells*
3. **Anne Lise Karlsgot Hestvik**, Frode Vartdal, and Trygve Holmøy  
*Multiple sclerosis: Idiotope specific T cells induce apoptosis of oligodendrocytes in vitro*
4. **Kristin S. Gunnarsen**, Geir Åge Løset, Bjarne Bogen, Inger Sandlie  
*Production of a soluble scTCR specific for a tumor-derived peptide presented on MHC class II*
5. **Ole J. B. Landsverk**, Tone F. Gregers, Cathrine Fladeby, Even Wahlseng, Tommy W. Nordeng, Oddmund Bakke  
*Free Invariant chain regulates surface MHC class II*
6. **Ranveig Braathen**, Kathrine Hagelsteen, Valerie S. Hohman, Per Brandtzaeg, Finn-Eirik Johansen  
*Two Phylogenetically Conserved J-Chain Motifs Critical for Secretory Immunity*
7. **Trygve Holmøy**, Gjertrud Skorstad, Anne Lise Karlsgot Hestvik, Peter Torjesen, Bodvar Vandvik  
*Clonal features of cellular and humoral immune responses to GAD65 in stiff person syndrome*

### Session II

8. **Lise Kveberg**, Camilla J. Bäck, Ke-Zheng Dai, Marit Inngjerdingen, Bent Rolstad, James C. Ryan, John T. Vaage, Christian Naper  
*The novel inhibitory NKR-P1C receptor and Ly49s3 identify two complementary, functionally distinct NK cell subsets in rats*
9. **Andersen TCB**, Spurkland A, Andreotti A, Karlsson BG  
*Itk SH3 domain binds the T cell specific adapter protein (TSAd) in a non conventional way*
10. **Søren Grove**, Renate Johansen, Liv J. Reitan, Birgit H. Dannevig  
*Experimental infection of Atlantic halibut with a neurotropic piscine nodavirus: quantification of pathogen and immune response in CNS and lymphoid tissue*
11. **Ke-Zheng Dai**, Christian Naper, Mike Daws, Lise Kveberg, Erik Dissen, Bent Rolstad, James C. Ryan, and John T. Vaage  
*Studies of structurally related Ly49 receptors in rats*
12. **Michael M Zangani**, Marianne Frøyland, Gao Yue Qiu, Jeff Kutok, Keith Thompson, Ludvig A Munthe, Bjarne Bogen  
*B cell lymphomas develop from B cells chronically helped by idiotype-specific T cells*
13. **Silke Appel**, Valdete Mirakaj, Anita Bringmann, Markus M. Weck, Frank Grünebach and Peter Brossart  
*PPAR- $\gamma$  agonists inhibit toll-like receptor mediated activation of dendritic cells via the MAP kinase and NF- $\kappa$ B pathways*
14. **Andersen JT**, Kenanova V, Olafsen T, Wu AM, Sandlie I  
*Modulation of the half-life of engineered antibodies by attenuating the IgG-Fc-neonatal Fc receptor (FcRn) interaction*

## Poster presentations

1. **Li-zhi Sun**, S. Elsayed, A. Irgens, N.P. Aardal, T.B. Aasen  
*Establishment of an isocyanate asthma mouse model*
2. **T. Van Do**, S. Elsayed and E. Florvaag  
*Fish hypersensitivity: Cross-reactivity of wild and recombinant parvalbumins from nine fish species*
3. **Geir Åge Løset**, Elin Lunde, Bjarne Bogen, Ole Henrik Brekke, Inger Sandlie  
*Display of correctly folded  $\alpha/\beta$  T cell receptor molecules on the surface of bacteriophage: analysis of fusion mode and display level*
4. **Hege S. Carlsen**, Takeshi Yamanaka, Helge Scott, Jarle Rugtveit, Per Brandtzaeg  
*CD40 ligand-independent modulation of CD40 on subepithelial macrophages in human gut mucosa*
5. **Else Munthe**, H. Craig Morton, Per Brandtzaeg and Finn-Eirik Johansen  
*Regulation of the J-chain expression in human B cells*
6. **Michael M. Zangani**, Harald Carlsen, Rune Blomhoff, Ludvig A. Munthe, Bjarne Bogen  
*Visualization of NF- $\kappa$ B and B cell activation in severe autoimmune disease*
7. **Julie D. Qian**, Jan T. Andersen, Terje E. Michaelsen, Inger Sandlie  
*Characterization of the interaction between human neonatal Fc receptor (hFcRn) and its ligands: The influence of conserved histidine-residues in FcRn*
8. **Godfrey E. Etokebe**, Ljiljana Bulat-Kardum, Jelena Knezevic, Zlatko Dembic  
*Interferon- $\gamma$  Receptor-1 Gene Promoter Polymorphisms (G-611A; T-56C) and Susceptibility to Tuberculosis*
9. **Terje E. Michaelsen**, John E. Thommesen, Oistein Ihle, Tone F. Gregers, Randi H Sandin, Ole Henrik Brekke, Inger Sandlie  
*A hybrid, chimeric human IgG1/IgG3 molecule with only one C1q binding site can activate complement and induce lysis of target cells*
10. **Per Brandtzaeg**, Mette Hvatum, Lars Kanerud, Roger Hällgren  
*Mucosal Overproduction of Polyreactive Food Antibodies in Rheumatoid Arthritis*
11. **Marjan J.T. Veuger**, Bjørg Mikalsen, Linda Kristiansen, Guttorm Haraldsen  
*NF-HEV, a nuclear factor of high endothelial venules associated with inflammatory endothelial cell activation*

**Welcome !!!**

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