

# LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

Walter Brendel Zentrum für Experimentelle Medizin und  
Institut für Kardiovaskuläre Physiologie und Pathophysiologie  
Medizinische Fakultät



Prof. Dr. med. Markus Sperandio

---

Marchioninstr. 15, 81377 München  
*markus.sperandio@med.uni-muenchen.de*

Tel. +49 89 2180 76505  
Fax +49 89 2180 76532

München, 08.07.2008

## **Short Report: VAN LEEUWENHOEK DISTINCTIVE TRAVEL AWARD 2006**

During my trip I had the great opportunity to visit three outstanding laboratories in the field of vascular biology, immunology, and hematopoiesis. However, before I start to give a short summary on how I benefited from these visits, I would like to express my sincere gratitude to the European Society of Microcirculation for granting me this award. It was a great honour for me and I am very thankful for this.

### Visited labs:

1) Klaus Ley M.D., Cardiovascular Research Center, University of Virginia, Charlottesville, USA:

In Klaus Ley's lab where I had spent three years as a postdoctoral fellow and Research Associate (1999-2002) I could initiate a collaboration on the role of ST3Gal-IV in chemokine-triggered firm leukocyte arrest. The results from this work have been published recently in the Journal of Experimental Medicine (2008 Jun 9;205(6):1435-46). The project was also supported by a grant from the German Research Foundation (SP621/3-1).

2) Uli von Andrian M.D., Ph.D., Center of Blood Research, Harvard Medical School, Boston, USA:

Uli von Andrian's lab has recently developed a novel intravital microscopy model to investigate the fetal microcirculation in the mouse. During an earlier

visit in his lab, Betsy Quackenbush, his former postdoc and now at Merck Inc., taught me the basics of this model and I could establish the fetal model in my lab in Germany. Since then we collaborate in a first project aiming to investigate the molecular mechanisms regulating leukocyte recruitment during fetal development. During my visit in 2006, I had the chance to discuss our first in vivo results from this model with Dr. von Andrian and talk about our future directions. A first manuscript is in preparation describing the model and presenting data on the developmental regulation of leukocyte recruitment in the fetus.

Apart from the fetal model, Irina Mazo M.D. from the von Andrian lab also taught me how to visualize trafficking cells in the murine bone marrow using fluorescence intravital microscopy.

3) Elaine Dzierzak Ph.D. and Catherine Robin Ph.D., Department of Cell and Developmental Biology, Erasmus University Rotterdam, Netherlands:

I visited Elaine Dzierzak's lab to initiate a collaboration on the trafficking of hematopoietic stem cells during fetal hematopoiesis. The Dzierzak lab has been made seminal contributions in this field. Using Sca-1-GFP mice (generated in the Dzierzak lab) and intravital fluorescence microscopy in the fetus, we are currently developing a model to observe the trafficking of hematopoietic precursor cells during fetal development in vivo.

In summary, the Van Leeuwenhoek travel award was a great opportunity for me to start new collaborations and learn new techniques. Although two years have passed since I have received the award I still benefit from those visits.

Thank you again and best regards

Markus Sperandio M.D.