# Travel Grant Report Form

## Name and origin of applicants

Are Martin Holm, Oslo University Hospital, Norway

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## Purpose granted

The purpose granted was to cover travel and lodging expenses for stud.med. Henrik Auråen on a research visit to professor Tom Egan's lab in Chapel Hill, NC, USA, and to finance one visit for associate professor Are Martin Holm, who is supervisor of Henrik Auråen's Ph.D.-project.

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## Amount granted

DKK 20.000,-

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## Time and place of visit

Henrik Auråen visited professor Tom Egan at the University of North Carolina, Chapel Hill, NC, USA from August 15. To December 08. 2011.

Are Martin Holm visited the same place from October 31. to November 5. 2011.

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## Report

Mr. Auråen was invited to participate in professor Thomas Egan's current research projects regarding a) *ex vivo* lung perfusion (EVLP) and b) effects of Toll Like Receptor (TLR) inhibitors in bronchial epithelial cell cultures. Both projects were already initiated in professor Egan's lab, and Mr. Auråen was introduced to the methods used and the theoretical background of the studies. This work continued for the entire stay, and is still ongoing.

The first weeks, Mr. Auråen was kindly invited to live with professor Egan's family privately, after that, he lived with other students at The University of North Carolina at Chapel Hill. The expenses for his flight and rent were partly covered by the Scandiatransplant grant.

Dr. Holm spent his stay visiting both professor Egan's lab, discussing issues related to the current projects, and visiting associate professor Neill Alexis at the Dept. for Pediatrics and Allergy at the UNC at Chapel Hill to work with a current collaborative study on induced sputum used to predict the development of bronchiolitis obliterans syndrome (BOS) after lung transplantation. In particular, time was spent to evaluate the results of flow cytometric analyses.  Furthermore, Dr. Holm participated in regular clinical meetings in the lung transplantation programme at the university clinic in Chapel Hill, and had discussions with pulmonologists form both Chapel Hill and Duke University Hospital in Raleigh, NC.

Dr. Holm stayed at a hotel in the campus area, and the expenses were also partly covered by the grant from Scandiatransplant.

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## Evaluation

Henrik Auråen is a medical student at the University of Oslo, and participates at the university's Research Programme for Medical Students, where the aim is that the student should publish one paper (first author) during the time of the medical education, and that the student should complete all courses necessary for a PhD. His project is concerned with donor factors related to recipient outcome in lung transplantation. During his stay at professor Egan's lab in Chapel Hill, Mr. Auråen learnt specifically and practically how *ex vivo* lung perfusion (EVLP) is done. This made him the first Norwegian to actually work with this system. This is a skill that is most useful to the lung transplant activity in Norway, since EVLP is currently being introduced at our center. Moreover, Mr. Auråen worked with *in vitro* cell cultures of bronchial epithelial cells as a model for inflammation in transplanted lungs. Studying such inflammatory processes is central to his own research project and to the research projects regarding lung transplantation at our center. Finally, merely getting familiar with work and culture in a distinguished research laboratory of international reputation, and specifically getting to know the experts employed there, has been of great value both to Mr. Auråen and to Dr. Holm. Also, this exchange is and will be of great value in connecting the research groups in Chapel Hill and Oslo.

In addition to this, while in Chapel Hill, Dr. Holm visited associate professor Neill Alexis to work on a common research project where leukocytes from induced sputum from lung transplant recipients are studied. Dr. Alexis' group has great expertise in this area, and this collaboration is crucial for the success of the current research project. In particular, learning how to interpret the results from flow cytometric analyses of cells acquired using induced sputum was very useful.

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