

## Short Term Scientific Mission (STSM) Report

### STSM details

<b>Title</b>	<b>Prevention of occupational skin diseases with special focus on health education, epoxy resins and personal protective equipment</b>
<b>Participants</b>	Dr. Annika Wilke and Andreas Hansen University of Osnabrück, Germany
<b>Host</b>	Prof. Dr. Jeanne Duus Johansen Videncenter for Allergi Gentofte Hospital, Denmark
<b>Period</b>	27 – 31 March 2017

### Background

In our department in Osnabrück, we offer interdisciplinary secondary (outpatient) and tertiary (inpatient) prevention programs to patients suffering from occupational skin diseases (OSD). Since patients with occupational skin diseases, (occupational) contact allergy as well as atopic dermatitis are counselled and treated at Gentofte Hospital, the STSM was an opportunity to exchange experiences in the treatment and counselling of patients.

Among our patients in Osnabrück, there are workers from various professions, including hairdressers suffering from allergic contact dermatitis. Professor Jeanne Duus Johansen and her research team are specialized in allergic contact dermatitis in the hairdressing trade and have performed extensive research in this topic. Thus, the STSM was an opportunity to get an in-depth insight in this work and to exchange experiences with researchers and practitioners from Denmark with special focus on primary prevention of occupational skin diseases in hairdressing apprentices.

In addition, researchers of our department have conducted various research projects in the past, e. g. on health services, evaluation of prevention programs for occupational skin diseases based on health education and counselling. Currently, we are working on a research project concerning the prevention of occupational allergic contact dermatitis caused by epoxy resins. Here, early primary prevention before the first contact to epoxy resins is of utmost importance. One aim of this project is to

investigate how vocational school teachers can be involved in primary prevention as multipliers. In Denmark, it is mandatory that everyone that is supposed to work with epoxy resins participates in a course in order to get a certificate before handling epoxy resins. Thus, exchange on this topic was another aim of the STSM.

### Aim (purpose) of the STSM

The aims of this STSM were:

- To get an insight into current research activities of the *Videncenter for Allergi* (e.g. glove use among hairdressers)
- Take part in prevention courses at schools (hairdressing and/or epoxy courses)
- To exchange knowledge, techniques and experiences in terms of prevention of occupational skin diseases and the counselling of patients

### Work carried out during the STSM

Prof. Dr. Jeanne Duus Johansen and her team had kindly prepared a very interesting and well-structured program which gave us the opportunity to gain insight in the various activities of the *Videncenter for Allergi* as well as different departments of *Gentofte Hospital*. Hence, we were provided with many helpful information and learned a lot about our fields of interest. There was always enough time for discussion.

On the first day of the STSM (Monday), Dr. Ulrik F. Friis, Prof. Dr. Jeanne Duus Johansen and Anne Marie Topp gave us an overview about their research and prevention activities for hairdressers. This included a mutual exchange of previous and future research activities and special techniques (e.g. to quantify skin exposure by applying fluorescence techniques) as well as experiences with teaching hairdressing apprentices but also teachers at vocational schools. We were introduced to the other researchers working at the *Videncenter for Allergi* and their current research activities, e.g. research on allergy to nickel and fragrances.

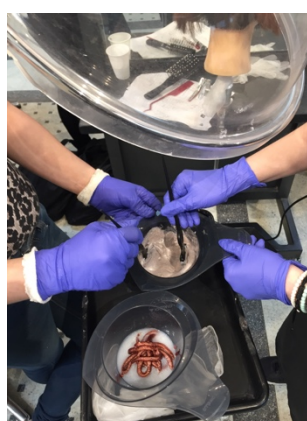
In the course of the STSM, Dr. Ulrik F. Friis showed us the laboratories in which formaldehyde analysis of patients own materials and thin layer chromatography (TLC) procedures are carried out. This offered new perspectives to us for future research approaches.

During our stay, we gave two short presentations for nurses and doctors of the Department of Dermatology at Gentofte Hospital. These presentations included information on the work of our department in Osnabrück (patient care and research activities) as well as on the structures of patient care and prevention of occupational skin diseases in Germany. This was followed by a short discussion.



In the course of the STSM, we were invited to a very inspiring visit to Industrial Educations and a dialogue with chief consultant Christina Stougaard Hansen and Casper Burlin about the mandatory courses on epoxy resins and how they are implemented and performed in Denmark. On the one hand, this will be of great value for our current research project, e.g. in view of protective gloves, the specific needs of teachers and workers as well as ideas for the methodical implementation of this topic in learning environments. On the other hand, our current research project and its results had been of great interest for our hosts. We agreed on future exchange and discussion of the results in early 2018.

Another day was dedicated to a visit to the Hairdressing School in Næstved. This gave us the chance to gain an in-depth insight into the current prevention and teaching practices regarding the prevention of occupational skin diseases. We discussed with teachers and apprentices the structure of the hairdressing apprenticeship in Denmark and Germany, the education at vocational schools and workplaces and especially how occupational skin diseases can be prevented as well as possible challenges. This included exchange of information on about how the apprentices use gloves, which gloves are used, etc.



We had several opportunities to accompany nurses and doctors and to get insight into the processes of patient care and counselling. At the allergy test unit, we observed patch tests and prick tests and had talked to nurses and patients. In some cases, we had a discussion about a possible occupational relevance of the results. Furthermore, we were allowed to follow with the physicians seeing patients in the out-

patient clinic. In addition, we learned about different issues of Type-I-allergies and the «detective work» that can be part of the diagnostic procedures.

One afternoon, we were invited to a discussion and to an exchange of experiences and information in terms of protective gloves, e.g. different types of gloves and allergens in glove materials. Moreover, we talked about glove counselling in Osnabrück and in Gentofte with the group.



## Main results obtained

The main results obtained were:

- mutual exchange in terms of specific knowledge (e.g. gloves, materials, special techniques, skin protection) and experiences
- gain of knowledge in terms of diagnostic procedures, allergens and techniques (e.g. thin layer chromatography)
- ideas for future and current research projects (e.g. methodical inspiration for the implementation of prevention measures in teaching processes)
- meeting specialists for future exchange (e.g. after the project on epoxy resins will be finished), common research and future meetings (e.g. taking part in conferences on epoxy resins, visiting German hairdressing schools)

## Future collaboration with the host institution

We are looking forward to future collaboration and exchange with the *Videncenter for Allergi*, e.g. in view of expert knowledge on skin protection and counseling and the discussion of possibilities of improved prevention and patient care. In the beginning of 2018, we are going to exchange and discuss the results of our current research projects on epoxy resin and teachers (and their needs in view of teaching materials) with the Danish research group.

### Foreseen publications/articles resulting from the STSM

We are planning a paper dealing with the prevention of occupational skin diseases when handling epoxy resins and the specific role and needs of teachers at vocational schools in primary prevention. This paper will be inspired by the STSM and significantly benefit from the discussion of these topics in Denmark.

### Other comments

We would like to express our gratitude to Prof. Dr. Jeanne Duus Johansen and her research team as well as to the doctors and nurses at Gentofte Hospital for welcoming us, sharing their knowledge and giving us an interesting and very inspiring insight in their working methods and structures of patient care. In addition, we would like to thank the COST Action StanDerm for offering the possibility of this exchange.

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