Report on STSM "Clinic and Biomarkers" 18. – 22.05.2015

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Host

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Research goals

1. To gain clinical experience in the field of inflammatory skin diseases and susceptibility biomarkers, the main topic of my thesis. Atopic dermatitis in one of the best known predisposing factors for occupational dermatitis and thus is a target in the prevention of occupational skin diseases. Prof Irvine of Trinity College played a key-role in the discovery the filaggrin mutation, a landmark in the field of atopic and contact dermatitis.

2. To analyse, compare and discuss data of similar studies performed by the research team in Dublin and in our research team in Amsterdam on cytokines in the skin.

Objectives of the stay

- Acquire clinical experience in inflammatory skin research
- Analyze, compare and discuss data results from similar studies

Clinical experience /work carried out during the visit

Atopic dermatitis

During the outpatient clinic my main focus was on patients with atopic dermatitis. The patients that receive systemic treatment, such as methotrexate, are clustered in the Tuesday clinic. These patients have or have had severe eczema and all receive systemic treatment for it. The disease in these children can have dramatic effects their quality of life. Though the full blown disease can be very impressive in its early stage, it can be treated fairly well and when patients adhere the treatment protocol, good results can be achieved. Seeing the patients in the same day but at different stages of their atopic dermatitis gave an insight in how, with systemic drugs, a good result can be achieved. Also differences in patients' compliance and its effect of clinical outcome could be observed.

Laser therapy

In the clinic of Department of Dermatology of Trinity College Dublin in Our lady's children's hospital a wide variety of dermatological problems is dealt with. I did an observation of the laser-treatments that are performed at the operation theater. Mainly vascular malformations, such as Port-wine stains, are treated with a pulse dye laser and to a lesser extent the ND: YAG laser. This laser causes a coagulation of the vascular malformations and, after several sessions, has good cosmetic outcome. Seeing multiple patients at different stages of their treatment-process was educational, as result of the laser can only been seen after several weeks after the therapy. All patients had pre-treatment photos so a good comparison could be made.

Atopic dermatitis studies and general clinic

During my stay I observed three general clinics. All types of skin diseases are seen in this clinics. Mild forms of atopic dermatitis, which I study in my own research, are frequently seen in children and thus make up a good portion of the patients in this clinic. Many of Dr. A Irvine's studies are in children and as most of them never received therapy before they a good for studying atopic dermatitis development. This said, I also seen the difficulties the researchers experience in some of the administrative tasks, such as getting informed consent, that are more extensive than in the Netherlands. I have visited the lab briefly and dr. M. McAleer explained some of the more mechanistic experiments in their skin barrier research they are executing there.

Main results obtained

In the short period of time we were unable to extensively discuss the study results of our studies. Thus a detailed comparison couldn't be made but I did get a general in the daily routine of the clinic in which the studies were executed. Because the first target for this STSM was to gain more clinical experience in inflammatory skin diseases, I mainly focused on atopic dermatitis. I saw many patients in a short period of time, thus could make good comparison between the different types and stages of severity. It has helped me to categorize AD severity better for my future work.