Two Nordic Scientists Honoured with Advances in Psoriasis Research Grant

Agneta Andersson and Karena Meehan, Medical writer for TNF-News, Wyeth

As part of its commitment to advancing research in the field of psoriasis and TNF-related skin disorders, Wyeth Pharmaceuticals is pleased to announce the winners of the Advances in Psoriasis Research Grant Program. The program is designed to encourage and support groundbreaking research into a greater understanding of psoriasis and related disorders.

Winners were chosen by an Expert Panel of international leaders in dermatology from a pool of 56 applications from 24 countries in Europe, the Middle East and Africa. Each winner will receive a research grant of 100,000 Euros.

Two Award Winners!!!

Professor Mona Ståhle, Karolinska Institute, Stockholm, Sweden. Photo: Anders Kallersand.

Congratulations!!!

Associate Professor Lars Iversen, Aarhus University Hospital, Denmark. Photo: Aarhus University Hospital.

***We congratulate Professor Mona Ståhle, Stockholm, Sweden and Associate Professor Lars Iversen, Aarhus, Denmark.* Read on for more information about the winners and their projects.**

MONA STÅHLE

Searching for Genetic TNF-α Response Predictors in Psoriasis Patients

Mona Ståhle, Professor of Dermatology and Venereology, Department of Medicine, Karolinska Institutet, Stockholm, Sweden has received this research grant for her project entitled, *Genetic variation and microRNA-mediated regulation of genes in the TNF-α pathway in psoriasis*. Her project focuses on identifying genetic variations in TNF-α or relating molecules in psoriasis patients with the ultimate goal of seeing if it is possible to predict how a patient will respond to treatment.

"We are not just looking at standard genes," said Professor Ståhle. "We are also looking at copy number variation of genes and the potential role for microRNA in regulating the expression of targeted genes."

MicroRNAs are small genes that make RNA but are not translated into protein. They do not have a function of their own

but they inhibit other genes by binding to specific regions of genes - the 3‘ untranslated region.

Using her cohort of psoriasis patients, Ståhle and her colleagues will examine TNF-alpha and other molecules in the pathway with regards to copy number variation and to see if they are targets for regulation by microRNAs associated with inflammation. After that phase is complete, they also plan to look at treated patients to determine if the genetic variations identified in the psoriasis population influence response to treatment.

Ståhle and her team had not specifically looked at this pathway or TNF-α before, but became intrigued as they noted how some patients receiving systemic treatment responded and others did not.

“By structuring this study around patients, we are really building a genetic biobank around this topic. There is huge interest from patients, the industry and payors as we try to move toward personalized treatment,” said Professor Ståhle, adding, “We would never have been able to do this project without this grant. We are very happy.”

LARS IVERSEN

Exploring the Pathogenesis of Psoriasis

Associate Professor Lars Iversen, from the Aarhus University Hospital in Aarhus, Denmark has received this research grant for his project entitled *Inflammatory caspases, inflammasomes and MAPK phosphatases in the pathogenesis of psoriasis*. His project is focused on characterizing and gaining a better understanding of the role of the immune response in the pathogenesis of psoriasis.

“This is a new area that we have chance to work on thanks to the grant,” said Associate Professor Iversen. “The project looks at our immune system’s two types of immunity – innate, which is the first line of defense against pathogens, and adaptive. Both contribute to the pathogenesis of psoriasis but it appears that psoriasis leads to uncontrolled activation of the immune response. We believe that inflammatory caspases may serve as a link between innate immunity and the development of inflammatory diseases like psoriasis.”

Using the research grant, Iversen will work to dissociate necessary – and desirable – protective responses from unwanted and uncontrolled inflammation, in order to identify potential targets in the treatment of psoriasis.

Another aspect of the study is establishing the role of TNF-α in the development of psoriasis.

“We know the TNF-α plays a significant role in the pathogenesis of psoriasis so we also want to see what happens in the skin with the inflammatory caspases and the MAPK phosphatases when inhibiting TNF-α” said Iversen. (1)

As part of his project, biopsies will be performed on patients during the initial phases of treatment with TNF-α antagonists and at the end of the study. Iversen anticipates that treating with anti-TNFs will lead to a rapid response of the pathways studied in the study subjects, indicating the importance of the system in the pathogenesis of psoriasis.

Iversen expects to complete the project within approximately 18 months, thanks in large part to his research group.

“We will have a large group of people working on this project,” concluded Iversen. “These grants are very important. For us, it is a significant contribution that enabled us to start this project. It is also a great recognition of the work we are doing.”

Reference:

1. Nickoloff B. Recent insights into the immunopathogenesis of psoriasis provide new therapeutic opportunities. J Clin Invest 2004; 113: 1664-1675.