

17 April, 2019

New study opens up new applications for SciBase's product Nevisense

The Swiss Institute of Allergy and Asthma Research (SIAF) and SciBase announce today the publication of a breakthrough animal study within the area of skin barrier assessment. The paper, which is entitled 'Direct assessment of skin epithelial barrier by electrical impedance spectroscopy', was published online in the journal *Allergy, European Journal of Allergy and Clinical Immunology*. The study was performed in Davos by SIAF with support from SciBase, and the lead author for the publication was Prof. Cezmi A. Akdis, Director of SIAF.

Building on work done within atopic dermatitis (AD) by Stig Ollmar and SciBase over a decade ago, SIAF applied SciBase's combination of unique electrode design and electrical impedance spectroscopy (EIS) methodology to assess skin barrier function in mice. The aim of the study was to establish a method to assess the skin epidermal barrier function *in vivo* with good environmental stability, so that it could be used as a diagnostic tool for barrier-related inflammatory disorders of the skin, such as AD. The study concluded that '*EI spectroscopy is a rapid and reliable diagnostic tool to detect skin barrier defects*'.

Given that Nevisense is already established as a clinical method within melanoma detection, the study illustrates clear potential for the use of Nevisense in routine clinical evaluation of the barrier, and the investigation of barrier-related disorders. Nevisense is commercially available today for general investigation and research of the skin.

There is an increasing realization of the importance of the barrier in the development, characterization and management of a range of disorders. Barrier defects have been reported in atopic dermatitis (AD), asthma, chronic rhinosinusitis, allergic rhinitis, esophagitis and colitis. Assessment of barrier impairment provides insight into these disorders, but the assessment of skin barrier has to date been limited to research methods.

"Our aim is to bring this method to daily patient care as a biomarker for analysing treatment responses and selection of skin barrier defective patients. In addition, early detection of skin barrier defective babies before atopic dermatitis starts is an unmet need, because these babies can be included in skin barrier protection programs to prevent the development of atopic dermatitis. Atopic dermatitis affects more than 10% of the world's population and 80% of the patients are babies", says Professor Cezmi A. Akdis

"The publication of this paper marks a milestone for SciBase. For the first time there is a device available that could be used to investigate the barrier quickly and easily in a routine clinical setting. The breadth of the potential applications is extraordinary – disorders such as eczema, food allergies and asthma, and even some gastrointestinal disorders involve the barrier.

The really exciting thing is that this first study utilizes only a fraction of the impedance information available. There is much, much more information in the Nevisense impedance measurements and SciBase believe this can provide significantly more insight and utility to clinicians in the future.

We expect that this study will generate a lot of interest from researchers and look forward to addressing that market. Clinical trials with different patient groups are ongoing and together with SIAF, we look forward to developing broadly useful clinical tools for different conditions", says Simon Grant, CEO of SciBase.

The full article can be found here: <https://onlinelibrary.wiley.com/doi/abs/10.1111/all.13824>

For more information, please contact:

Simon Grant, CEO SciBase

Tel: +46 72 887 43 99

Email: simon.grant@scibase.com

Certified Advisor:

Avanza

Tel: +46 409 421 20

Email: corp@avanza.se

About SciBase and Nevisense

SciBase AB is a Swedish medical technology company, headquartered in Stockholm that has developed and sells a unique point-of-care device for evaluation of skin disorders such as skin cancer and atopic dermatitis. Its first product, Nevisense, helps doctors to detect malignant melanoma, the most dangerous type of skin cancer. SciBase was founded by Stig Ollmar, Associate Professor at The Karolinska Institute in Stockholm, Sweden. Nevisense is based on substantial research and has achieved excellent results in the largest clinical study ever conducted on the detection of malignant melanoma. Nevisense is CE marked in Europe, has TGA approval in Australia and a FDA clearance in the United States. Nevisense is based on a method called Electrical Impedance Spectroscopy (EIS), which uses the varying electrical properties of human tissue to categorize cellular structures and thereby detect malignancies and abnormalities. SciBase is listed on Nasdaq First North ("SCIB"). Further information is available at www.scibase.com.

About SIAF-SFI

The Swiss Institute of Allergy and Asthma Research (SIAF) is a department of the foundation Swiss Research Institutes for High Altitude Climate and Medicine Davos (SFI), an affiliated institute of the University of Zurich, and member of the Life Science Zurich Graduate School. SIAF members play leading roles in national and international organizations, such as European Academy of Allergy and Clinical Immunology and in editorial boards and editorships of top Journals in the field of allergy asthma and clinical immunology. At the same time, SIAF fulfills teaching obligations in the University of Zurich. The research activities at SIAF are focused on patient-relevant translational research and the investigation of the immunological principles in the field of skin atopic dermatitis, allergies and asthma to develop approaches for new preventive and curative treatments for patients. SIAF also promotes personalized medicine to develop treatment approaches that are better tailored to the needs of individual patients. These personalized medicine research activities are expected to not only help to find tailor-made therapies but also to develop more precise diagnosis. The continuously growing SIAF is one of the most cited and leading institutes in its area worldwide with more than 50,000 citations and 1,000 original research articles in the last 20 years. SIAF organizes the internationally renowned World Immune Regulation Meeting (WIRM) in Davos every year. SIAF works in close collaboration with the Christine Kühne-Center for Allergy Research and Education (CK-CARE), Davos. SIAF is preparing to move to its new building within the Alpine Allergy Campus in Davos-Wolfgang and looking forward to work knee to knee with Hochgebirgsklinik Davos and CK-CARE to bring solutions to allergy patients. Further information is available at www.siaf.uzh.ch.