



**SARA PROSÉN** received her medical degree from Uppsala University in 2007. Following her internship, she completed specialist training in dermatology and venereology at Örebro University Hospital. In 2016, she received her specialist degree in dermatology and venereology. She is currently practicing as a dermatologist at Örebro University Hospital, and since 2018 has been pursuing doctoral studies at the School of Health and Medical Sciences, Örebro University.

The incidence of the keratinocyte cancers basal cell carcinoma and cutaneous squamous cell carcinoma are rising in fair-skinned populations, highlighting the need for cost-effective treatments and efficient flow through the healthcare system. This thesis investigates metabolic biomarkers in keratinocyte cancer with the aim of gaining more knowledge of carcinogenesis in order to find potential new targets for treatment. The results reveal changes in the expression of various metabolic proteins in keratinocyte cancer suggesting that these proteins are regulated by the tumour's microenvironment. The membrane-bound amino acid transporter SLC7A5, also known as LAT1, was tested as a potential treatment target by conducting in vitro experiments. This thesis highlights the need for more insight into the complex processes inside the cancer cells and their interaction with the microenvironment, and motivates the construction of more advanced models to further investigate whether LAT1 inhibition can play a role in the treatment of keratinocyte cancer.

ISSN 1652-4063  
ISBN 978-91-7529-624-1

SARA PROSÉN Studies on expression profiles in keratinocyte cancers with focus on basal cell carcinoma

2025



Doctoral Dissertation

## Studies on expression profiles in keratinocyte cancers with focus on basal cell carcinoma

SARA PROSÉN

*Medical Science with a specialisation in Medicine*

SARA PROSÉN Studies on expression profiles in keratinocyte cancers with focus on basal cell carcinoma