

DÁNIEL TÖRŐCSIK



University of Debrecen
Faculty of Medicine
Department of Dermatology

Address: Nagyerdei krt. 98., H-4032 Debrecen, Hungary

RESEARCH AREA

The Group is a great opportunity for all who are interested in everyday skin problems such as acne and want to have a knowledge that can be translated into the real world. Our aim is to provide a knowledge that the participant could benefit from not only throughout the university years but also in post-doctoral fellowships. Moreover, we offer an exciting field of research for anyone who is interested in dermatology or in the cosmetic industry. In the nearly 10 years that we spent with research on how sebocytes moisturize the skin and how their altered lipid production leads to the development of acne. We also revealed that the changing sebaceous gland density at different parts of the body could be behind the site-specific appearance of some inflammatory skin diseases. Based on these findings we are currently investigating how sebocyte derived lipids could be therapeutically applied not only to treat dry skin but also inflammatory diseases.

TECHNIQUES AVAILABLE IN THE LAB

State of the art research techniques covering a wide spectrum of genetic studies, protein work and enrolment of patients suffering from acne, with a special focus on:

- studying acne involved skin
- in vitro cell cultures
- studying skin inflammation in mice
- genetic studies (eg. RNAseq, RT-Q-PCR, CRISPR gene modification)
- analysis of histological specimens

SELECTED PUBLICATIONS

Törőcsik, D., Fazekas, F., Póliska, S., Gregus, A., Janka E.A., Dull, K., Szegedi, A., Zouboulis, C.C., Kovács, D. (2021) Epidermal Growth Factor Modulates Palmitic Acid-Induced Inflammatory and Lipid Signaling Pathways in SZ95 Sebocytes. *Front Immunol* **12**: 600017.

Dull, K., Fazekas, F., Deák, D., Kovács, D., Póliska, S., Szegedi, A., Zouboulis, C.C., **Törőcsik, D.** (2021) miR-146a modulates TLR1/2 and 4 induced inflammation and links it with proliferation and lipid production via the indirect regulation of GNG7 in human SZ95 sebocytes. *Sci Rep* **11**: 21510

Szentkereszty-Kovács, Z., Fialat, S., Janka, E.A., Kovács, D., Szegedi, A., Remenyik, É., **Törőcsik, D.** (2021) Leptin Receptor (rs1137101) and Brain-Derived Neurotrophic Factor (rs925946) Gene Variants Are Associated with Obesity in the Early- but Not in the Late-Onset Population of Hungarian Psoriatic Patients. *Life* **11**: 1086.

Szentkereszty-Kovács, Z., Gáspár, K., Szegedi, A., Kemény, L., Kovács, D., **Törőcsik, D.** (2021) Alcohol in Psoriasis-From Bench to Bedside. *Int J Mol Sci* **22**: 4987.

Dull, K., Fazekas, F., **Törőcsik, D.** (2021) Factor XIII-A in Diseases: Role Beyond Blood Coagulation. *Int J Mol Sci* **22**: 1459.