

## Press release

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### Basic information

Name: Hakim Ben Abdallah Email: [hba@clin.au.dk](mailto:hba@clin.au.dk) Phone: 31146533

Department of: Clinical Medicine

Main supervisor: Claus Johansen

Title of dissertation: The role of heat shock protein 90 in inflammatory skin diseases

Date for defence: 21/05/24 at (time of day): 14:30 Place: Auditorium G206-142, Palle Juul-Jensens Boulevard 99, Aarhus University Hospital, 8200 Aarhus.

Press release (Danish)

Heat shock protein 90s rolle i inflammatoriske hudsygdomme

Heat shock protein 90 (HSP90) er muligvis et nyt potentielt angrebspunkt (drug target) for behandlingen af inflammatoriske hudsygdomme. Et nyt ph.d.-projekt fra Aarhus Universitet (Health) har undersøgt det terapeutiske potentiale af HSP90 hæmning i eksperimentelle laboratorieforsøg og i ét klinisk proof-of-concept studie. Projektet er gennemført af Hakim Ben Abdallah, der forsvarede det d. 21 maj, 2024.

På trods af den store udvikling af immunmodulerende medicin, så er der fortsat et behov for nye medicinske behandlinger af inflammatoriske hudsygdomme. HSP90 er et vigtigt protein, som er med til at folde og hermed sikre funktionen af flere hundrede klientproteiner. Nye studier tyder på, at hæmning af HSP90 kan medføre en reduktion af hudinflammation hos psoriasis og autoimmune bulløse hudsygdomme, men viden omkring dette er meget begrænset.

I dette ph.d.-projekt blev det terapeutiske potentiale af HSP90 hæmning for inflammatoriske hudsygdomme undersøgt i prækliniske modeller for hudinflammation (irritativt kontakteksem og atopisk eksem) samt i ét klinisk studie med hidrosadenitis suppurativa patienter. Resultaterne fra dette ph.d.-projekt er med til bringe ny viden om HSP90 hæmning som en ny potentiel behandling af inflammatoriske hudsygdomme.

Forsvaret af ph.d.-projektet er offentligt og finder sted den d. 21 maj 2024 kl. 14.30 i auditorium G206-142, Palle Juul-Jensens Boulevard 99, Aarhus Universitetshospital, Aarhus. Titlen på projektet er "The role of heat shock protein 90 in inflammatory skin diseases". Yderligere oplysninger: Ph.d.-studerende Hakim Ben Abdallah, e-mail: [hba@clin.au.dk](mailto:hba@clin.au.dk), tlf. 31146533.

Bedømmelsesudvalg:

Tue Wenzel Kragstrup (chairman)

Lektor, læge, PhD

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Brian Kirby,

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Press release (English)

## The role of heat shock protein 90 in inflammatory skin diseases

Heat shock protein 90 (HSP90) may be a novel drug target for treating inflammatory skin diseases. A recent PhD project from Aarhus University (Health) investigated the therapeutic potential of HSP90 inhibition in preclinical models of cutaneous inflammation and in a proof-of-concept clinical study. The project was carried out by Hakim Ben Abdallah, who is defending his dissertation on 21/05/2024.

Despite the advancements in immunomodulating drugs, novel therapeutics are warranted for inflammatory skin diseases. HSP90 is an abundantly expressed protein involved in the folding, and thereby promoting the activity, of hundreds of client proteins. Recent studies indicate that inhibition of HSP90 may alleviate skin inflammation in psoriasis and autoimmune bullous diseases, but the evidence is very limited.

In this PhD project, the feasibility of HSP90 inhibition as a novel therapeutic mode-of-action for inflammatory skin diseases was evaluated in preclinical models of cutaneous inflammation (i.e., irritant contact dermatitis and atopic dermatitis) and in a clinical study with hidradenitis suppurativa patients. The results from the PhD project advance our knowledge of the therapeutic potential of HSP90 inhibition in inflammatory skin diseases.

The defence is public and takes place on 21/05/2024 at 14:30 in Auditorium G206-142, Palle Juul-Jensens Boulevard 99, Aarhus University Hospital, Aarhus. The title of the project is "The role of heat shock protein 90 in inflammatory skin diseases". For more information, please contact PhD student Hakim Ben Abdallah, email: [hba@clin.au.dk](mailto:hba@clin.au.dk), Phone +45 3114 6533.

The assessment committee:

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