Press release

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Basic information

Name: Signe Maria Nielsen Email: smni@clin.au.dk Phone: 27129631

Department of: Clinical Medicine

Main supervisor: Niels Nørskov-Lauritsen

Title of dissertation: Achromobacter biofilms in cystic fibrosis

Date for defence: 27/06 2017 at (time of day): 14.00 Place: Auditorium B, Aarhus University Hospital

Press release (Danish)

Achromobacter biofilm i cystisk fibrose

Et nyt ph.d.-projekt fra Aarhus Universitet, Health har karakteriseret biofilm dannelse in vitro i kliniske isolater af bakterien Achromobacter samt undersøgt mekanismer involveret i biofilm dannelse og kronisk infektion. Projektet er gennemført af Signe Maria Nielsen, der forsvarer det d. 27/06 2017

Bakterier af slægten Achromobacter bliver i stigende grad isoleret fra cystisk fibrose (CF) patienter, og anses i dag som vigtige patogene bakterier i denne patientgruppe. Ud over resistens-udvikling øger biofilmdannelse også bakteriernes tolerane overfor antibiotika, hvilket gør lungeinfektioner hos CF patienter svære at behandle, hvilket ofte fører til kroniske infektioner. I dette Ph.d. studie har vi undersøgt biofilm dannelse i kliniske Achromobacter isolater fra CF patienter. Afhandlingen har frembragt ny viden om biofilmens struktur og morfologi in vitro, belyst betydningen af biofilm for tolerance overfor antibiotika hos Achromobacter samt undersøgt molekylære mekanismer involveret i Achromobacter biofilm dannelse og evolutionær tilpasning til kronisk infektion hos CF patienter.

Forsvaret af ph.d.-projektet er offentligt og finder sted den 27/06 kl. 14.00 i Auditorium B, Aarhus Universitetshospital, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N. Titlen på projektet er "Achromobacter biofilm i cystisk fibrose". Yderligere oplysninger: Ph.d.-studerende Signe Maria Nielsen, e-mail: smni@clin.au.dk, tlf. 27129631.

Press release (English)

Achromobacter biofilms in cystic fibrosis

A new Ph.d. project from Aarhus University, Helth has characterized in vitro biofilm formation in clinical isolates of the bacteria Achromobacter and investigated mechanisms involved in biofilm formation and chronic infection.The project was carried out by Signe Maria Nielsen, who is defending her dissertation on 27/06.

Bacteria of genus Achromobacter are increasingly isolated from cystic fibrosis patients and are regarded as important pathogens in these patients. As well as developing antimicrobial resistance, biofilm formation furthermore increases tolerance towards antimicrobials, thereby increasing the difficulty of treating pulmonary infections in CF patients, often leading to chronic infections. During this Ph.D. study we investigated biofilm formation in clinical isolates of Achromobacter collected from CF patients. This thesis has provided new knowledge of biofilm structure and morphology in vitro, investigated biofilm tolerance towards antimicrobials and studied molecular mechanisms involved in Achromobacter biofilm formation and evolutionary adaptation to the CF lung.

The defence is public and takes place on 27/06 at 14.00 in Auditorium B, Aarhus University Hospital, Palle Juul-Jensens Boulevard 99, 8200 Aarhus N. The title of the project is "Achromobacter biofilms in cystic fibrosis". For more information, please contact PhD student Signe Maria Nielsen, email: smni@clin.au.dk, Phone +45 27129631

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