

## Press release

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### Basic information

Name: Diana Salomi Ponraj Email: [diana.ponraj@clin.au.dk](mailto:diana.ponraj@clin.au.dk) Phone: 60870171

Department of: Clinical Medicine

Main supervisor: Jeppe Lange

Title of dissertation: Diagnosis of slow growing Gram-positive anaerobic bacteria in orthopaedic implant-associated infections

Date for defence: 12/8 2024 at (time of day): 14.15 Place: Lake Auditorium, 1252-204 Eduard Biermann

Press release (Danish)

Ph.d.-forsvar af Diana Ponraj om diagnose af langsomt voksende gram-positive anaerobe bakterier i ortopædiske implantat-associerede infektioner

Ortopædiske implantat associerede infektioner (OIAI), selvom sjældne, har alvorlige konsekvenser for patienter og sundhedssystemet. Ud over virulente bakterier som *Staphylococcus aureus* bliver langsomt voksende anaerobe gram-positive bakterier (SGAB) som *Cutibacterium acnes* i stigende grad anerkendt som årsag til OIAI.

Formålet med denne ph.d.-afhandling var at evaluere metoder til diagnosticering af OIAI på grund af SGAB.

Projektet er udført af Diana Ponraj, der forsvare sin afhandling d. 12/8.

Denne ph.d.-afhandling består af fire indlejrede originale artikler, der repræsenterer arbejdet udført svarende til et fuldtids-ph.d.-program. De kliniske prøver er indsamlet fra Ortopædkirurgisk Afdeling, Aarhus Universitetshospital, og alt laboratoriarbejde er udført på Biomedicinsk Afdeling, Aarhus Universitet.

Forsvaret er offentligt og finder sted den 12/8 2024 kl. 14.15 i 1252-204 Eduard Biermann auditorium, Aarhus Universitet, Bartholins Allé 3, Aarhus.

Projektets titel er "Diagnose af langsomt voksende Gram-positive anaerobe bakterier ved ortopædiske implantat-associerede infektioner".

Bemærk venligst, at forsvaret kun afholdes på engelsk.

For mere information kontakt venligst ph.d.-studerende Diana Ponraj, mail: [diana.ponraj@clin.au.dk](mailto:diana.ponraj@clin.au.dk).

Bedømmelsesudvalg:

Elsé Marie Vestergaard MD, PhD (forperson). Klinisk Biokemisk Afdeling, Regionshospital Horsens Horsens, Danmark.

Yvonne Achermann MD, PhD. Afdeling for infektionssygdomme og hospitalepidemiologi Universitetshospitalet i Zürich, Zürich, Schweiz.

Thomas Bjarnsholt PhD, DMSc. Institut for Klinisk Mikrobiologi (Costerton Biofilm Center) Københavns Universitet, København, Danmark.

Press release (English)

PhD defence by Diana Ponraj on Diagnosis of slow growing Gram-positive anaerobic bacteria in orthopaedic implant-associated infections

Orthopaedic implant associated infections (OIAI), though rare, have serious implications for the patients, the surgeons, and the healthcare system. In addition to virulent bacteria like *Staphylococcus aureus*, slow-growing Gram positive bacteria (SGAB) like *Cutibacterium acnes* are increasingly being recognized as causative agents of OIAI.

The aim of this PhD thesis was to evaluate the usefulness of culture-dependent and culture independent methods in the diagnosis of OIAI due to SGAB, using sonication fluid (SF) as the primary diagnostic specimen.

The project was carried out by Diana Ponraj, who is defending her dissertation on 12/8.

This PhD dissertation consists of four embedded original papers, representing the work conducted in three years of a full-time PhD programme. The clinical samples were collected from the Department of Orthopaedic Surgery, Aarhus University Hospital and all laboratory work was conducted at the Department of Biomedicine, Aarhus University.

The defence is public and takes place on 12/8 2024 at 14.15 in 1252-204 Eduard Biermann auditorium, Aarhus University, Bartholins Allé 3, Aarhus.

The title of the project is "Diagnosis of slow growing Gram-positive anaerobic bacteria in orthopaedic implant-associated infections".

Please note that the defence will be held only in English.

For more information, please contact PhD student Diana Ponraj, email: [diana.ponraj@clin.au.dk](mailto:diana.ponraj@clin.au.dk).

Assessment committee:

Else Marie Vestergaard MD, PhD (Chairperson) Department of Clinical Biochemistry Horsens Regional Hospital, Horsens, Denmark.

Yvonne Achermann MD, PhD Division of Infectious Diseases and Hospital Epidemiology University Hospital of Zurich, Zurich, Switzerland.

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